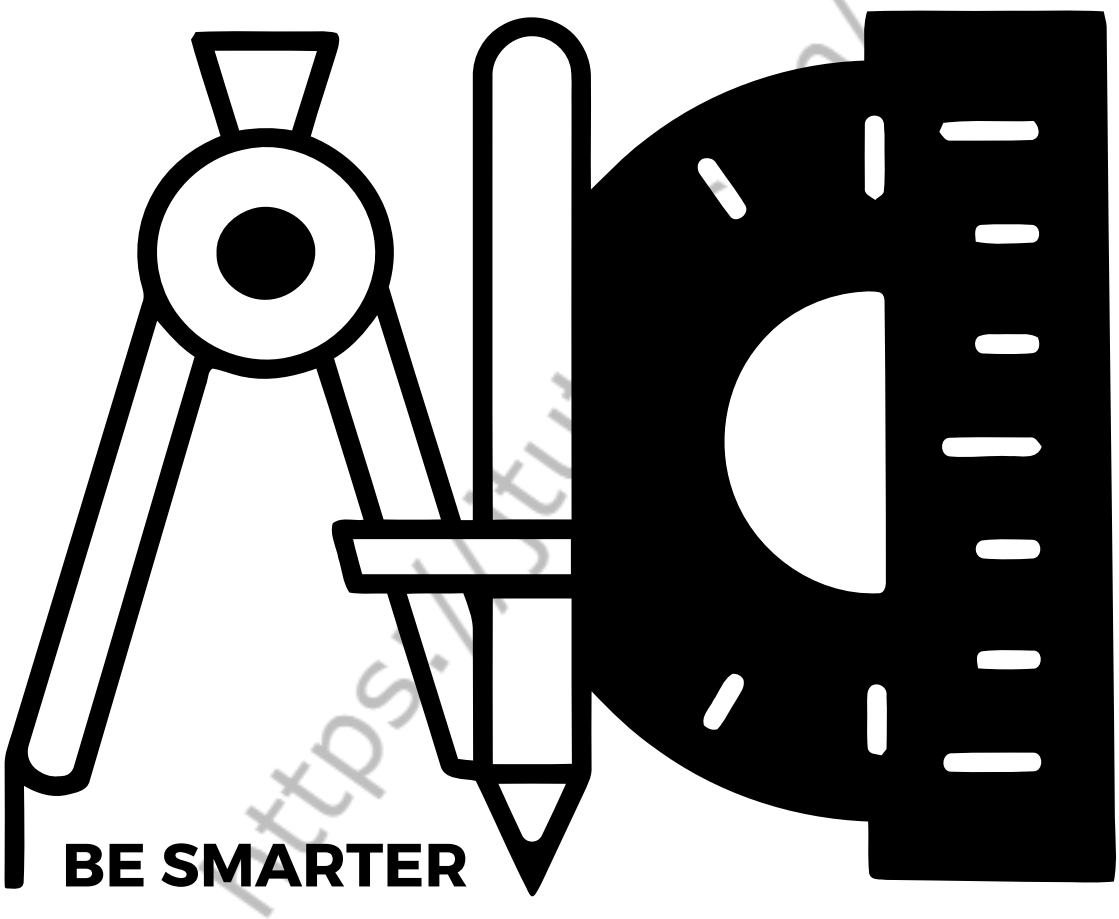
# J-TUTES




# YEAR 3 WORKBOOK

## TERM 3 SYLLABUS

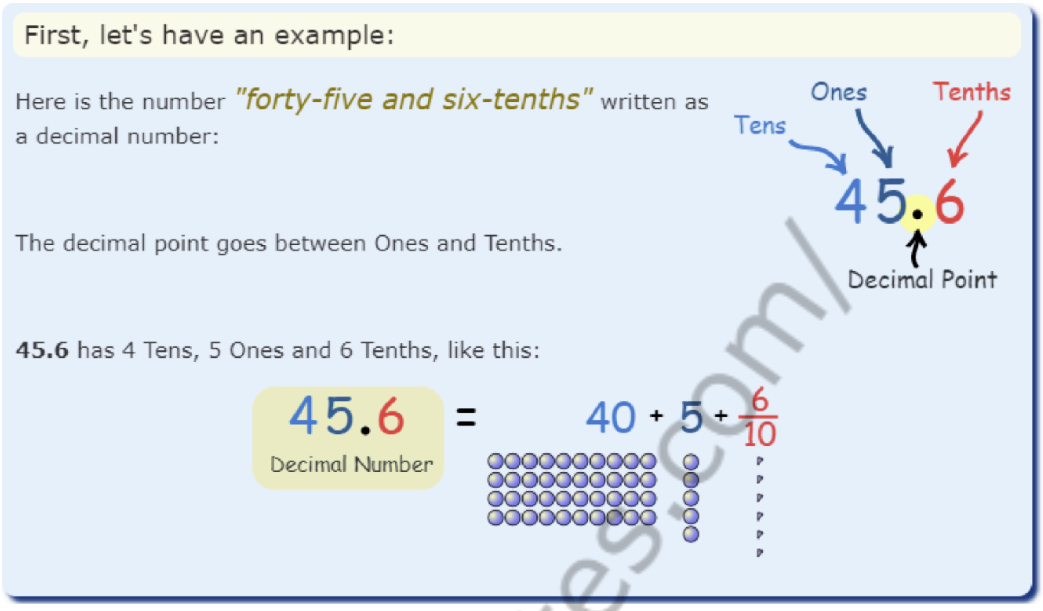
# CHAPTER 1 - TEST DISCUSSION

# CHAPTER 2 - UNDERSTANDING DECIMALS

# CHAPTER 2 - UNDERSTANDING DECIMALS

## Representing Comparing and Ordering - Decimals

A Decimal Number *(based on the number **10**)* contains a **Decimal Point.**




Now, let's discover how it all works....**Place Value**
It is all about Place Value !

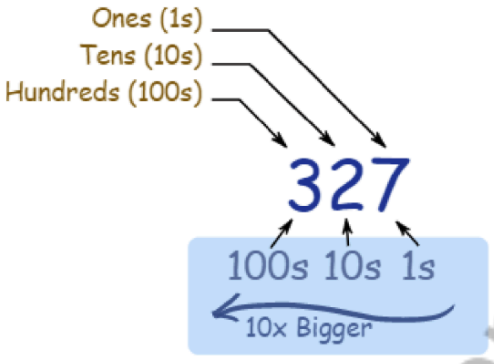
**When we write numbers, the position (or "place") of each digit is important.**

In the number 327:

- the "7" is in the **Ones** position, meaning 7 ones (which is 7),
- the "2" is in the **Tens** position meaning 2 tens (which is twenty),
- and the "3" is in the **Hundreds** position, meaning 3 hundreds.

# CHAPTER 2 - UNDERSTANDING DECIMALS

## Representing Comparing and Ordering - Decimals




"Three Hundred Twenty Seven"

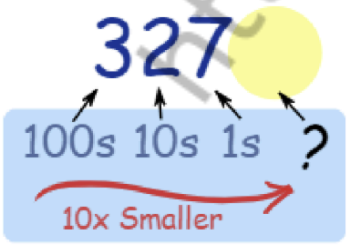
As we move left, each position is 10 times bigger!

**Tens** are 10 times bigger than **Ones**
**Hundreds** are 10 times bigger than **Tens**

... and ...

As we move right, each position is 10 times **smaller**.

From **Hundreds**, to **Tens**, to **Ones**



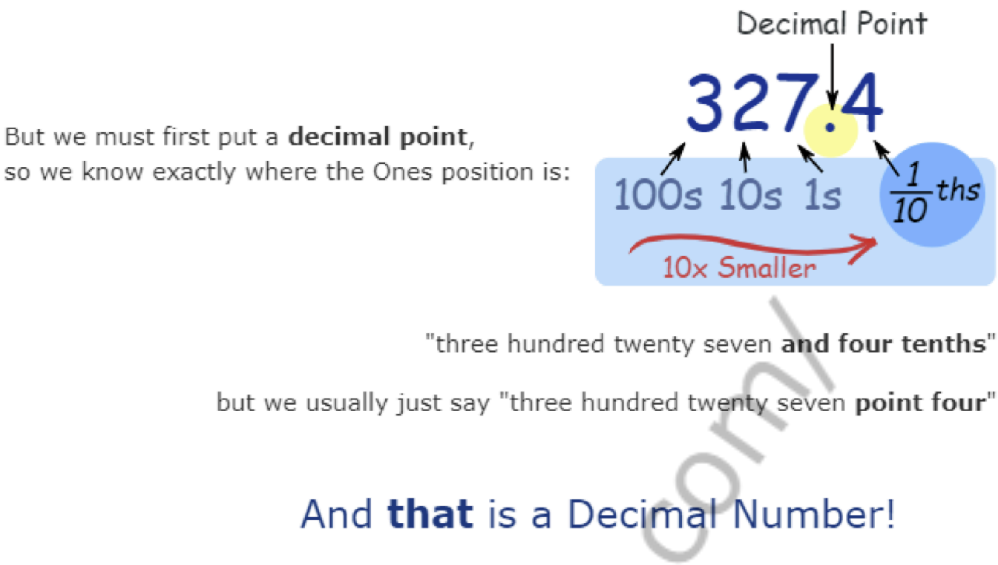

But what if we continue past Ones?

What is **10 times smaller** than Ones?

$\frac{1}{10}$ths (Tenths) are!

# CHAPTER 2 - UNDERSTANDING DECIMALS

## Representing Comparing and Ordering - Decimals






### Ordering Decimals

Ordering decimals can be tricky. Because often we look at 0.42 and 0.402 and say that 0.402 must be bigger because there are more digits. But no!

We can use this method to see which decimals are bigger:

- Set up a table with the **decimal point in the same place** for each number.
- Put in each number.
- Fill in the **empty squares with zeros**.
- Compare using the **first column** on the left
- If the digits are equal move to the **next column** to the right until one number wins.

# CHAPTER 2 - UNDERSTANDING DECIMALS

## Example: Put the following decimals in ascending order:

1.506, 1.56, 0.8

In a table they look like this:

| Ones | Decimal Point | Tenths | Hundredths | Thousandths |
|---|---|---|---|---|
| 1 | . | 5 | 0 | 6 |
| 1 | . | 5 | 6 | |
| 0 | . | 8 | | |

### Fill in the empty squares with zeros:

| Ones | Decimal Point | Tenths | Hundredths | Thousandths |
|---|---|---|---|---|
| 1 | . | 5 | 0 | 6 |
| 1 | . | 5 | 6 | 0 |
| 0 | . | 8 | 0 | 0 |

### Compare using the first column (Ones)

Two of them are "1"s and the other is a "0". Ascending order needs smallest first, and so "0" is the winner:

Answer so far: **0.8**

Now we can remove 0.8 from the list:

| Ones | Decimal Point | Tenths | Hundredths | Thousandths |
|---|---|---|---|---|
| 1 | . | 5 | 0 | 6 |
| 1 | . | 5 | 6 | 0 |
| - | . | - | - | - |

### Compare the Tenths

Now there are two numbers with the same "Tenths" value of 5, so move along to the "Hundredths" for the tie-breaker

### Compare the Hundredths

One of those has a 6 in the hundredths, and the other has a 0, so the 0 wins (remember we are looking for the smallest each time). In other words 1.506 is less than 1.56:

Answer so far: **0.8, 1.506**

# CHAPTER 2 - UNDERSTANDING DECIMALS

## Example: Put the following decimals in ascending order:

Remove 1.506 from the list:

| Ones | Decimal Point | Tenths | Hundredths | Thousandths |
|---|---|---|---|---|
| - | . | - | - | - |
| 1 | . | 5 | 6 | 0 |
| - | . | - | - | - |

Only one number left, it must be the largest:

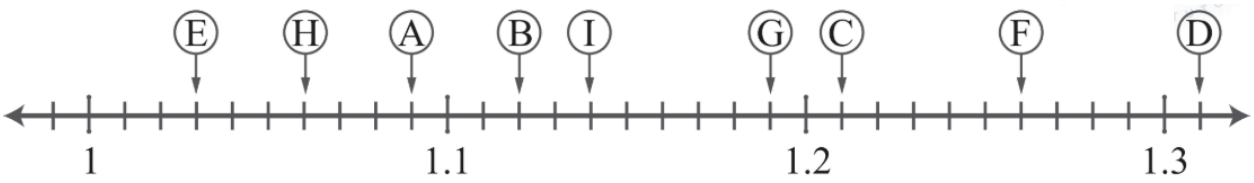
Answer: **0.8, 1.506, 1.56**

Done!

# CHAPTER 2 - UNDERSTANDING DECIMALS

## Decimal Number Line (Hundredths)

**Write the correct letter for each decimal number.**



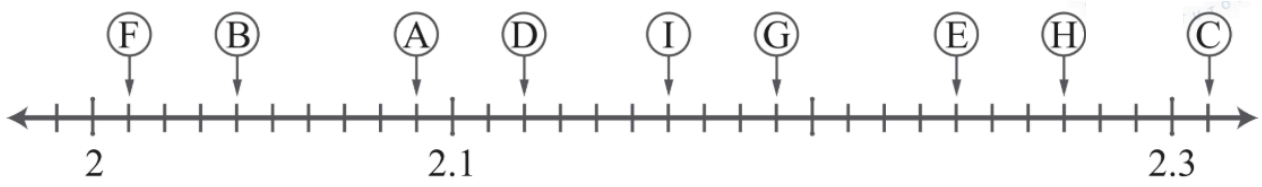

| | | |
|---|---|---|
| 1.06 = ☐ | 1.03 = ☐ | 1.09 = ☐ |
| 1.12 = ☐ | 1.19 = ☐ | 1.14 = ☐ |
| 1.21 = ☐ | 1.31 = ☐ | 1.26 = ☐ |


| | | |
|---|---|---|
| 0.03 = ☐ | 0.01 = ☐ | 0.06 = ☐ |
| 0.21 = ☐ | 0.09 = ☐ | 0.19 = ☐ |
| 0.12 = ☐ | 0.29 = ☐ | 0.26 = ☐ |

# CHAPTER 2 - UNDERSTANDING DECIMALS

## Decimal Number Line (Hundredths)

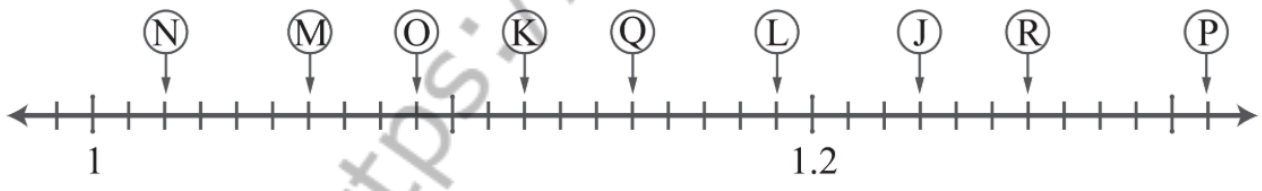
**Write the correct decimal number for each letter**




A = ☐ D = ☐ G = ☐

B = ☐ E = ☐ H = ☐

C = ☐ F = ☐ I = ☐




J = ☐ M = ☐ P = ☐

K = ☐ N = ☐ Q = ☐

L = ☐ O = ☐ R = ☐

## CHAPTER 2 - UNDERSTANDING DECIMALS

### Decimal Number Line (Hundredths)

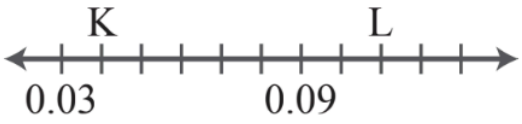
### Write the correct decimal number for each letter


N = ☐

O = ☐

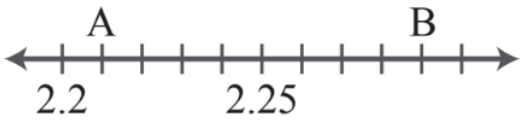

R = ☐

S = ☐



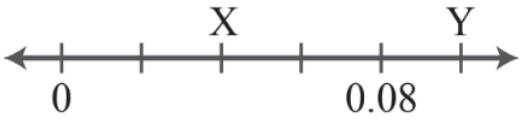

K = ☐

L = ☐



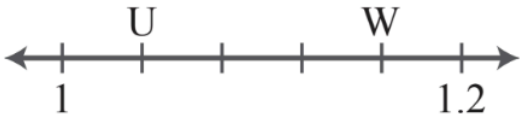

A = ☐

B = ☐




X = ☐

Y = ☐



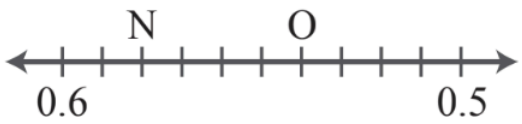

U = ☐

W = ☐

# CHAPTER 2 - UNDERSTANDING DECIMALS

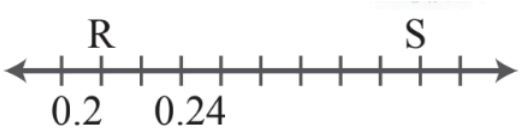
## Decimal Number Line (Hundredths)

**Use the number lines to write the decimal value of the letters.**



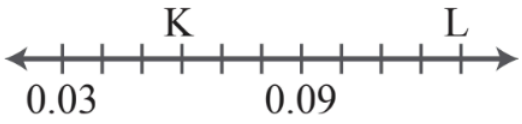

N = ☐

O = ☐



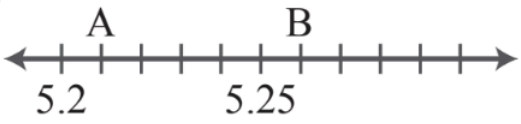

R = ☐

S = ☐



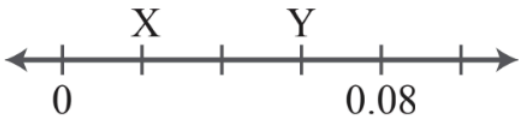

K = ☐

L = ☐



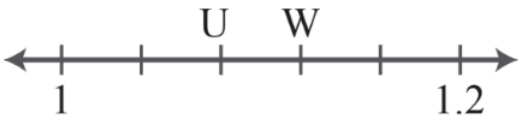

A = ☐

B = ☐




X = ☐

Y = ☐



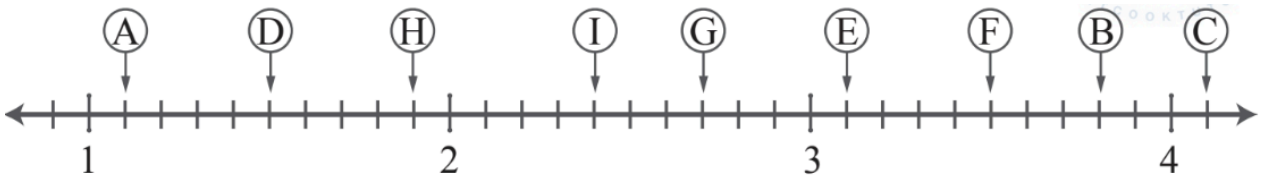

U = ☐

W = ☐

# CHAPTER 2 - UNDERSTANDING DECIMALS

## Decimal Number Line (Tenths)

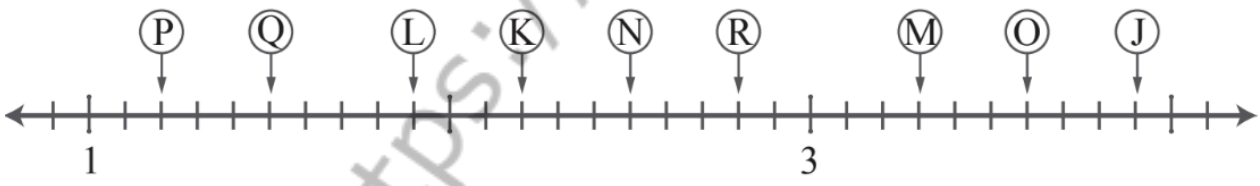
## Write the correct decimal number for each letter




A = ☐ D = ☐ G = ☐

B = ☐ E = ☐ H = ☐

C = ☐ F = ☐ I = ☐




J = ☐ M = ☐ P = ☐

K = ☐ N = ☐ Q = ☐

L = ☐ O = ☐ R = ☐

# CHAPTER 2 - UNDERSTANDING DECIMALS

## Decimal Number Line (Tenths)

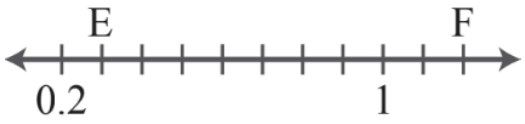
**Write the correct decimal number for each letter**


A = ☐

B = ☐

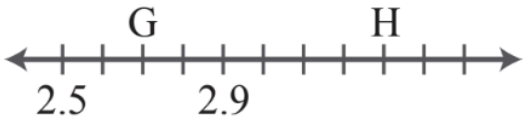

C = ☐

D = ☐



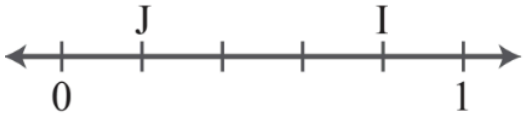

E = ☐

F = ☐



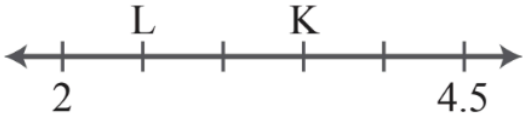

G = ☐

H = ☐




I = ☐

J = ☐



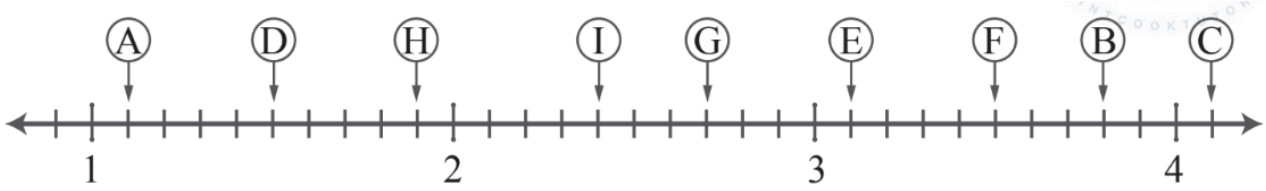

K = ☐

L = ☐

# CHAPTER 2 - UNDERSTANDING DECIMALS

## Decimal Number Line (Tenths)

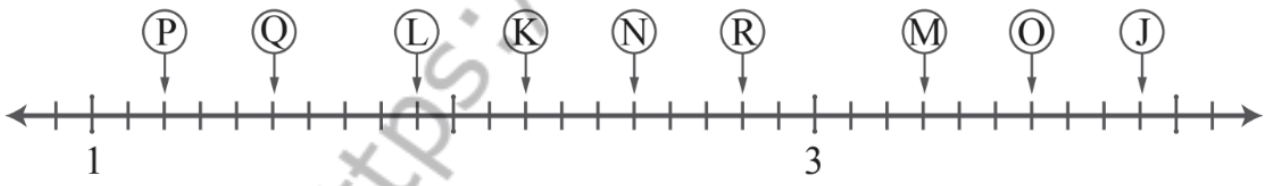
**Write the correct decimal number for each letter**




A = ☐ D = ☐ G = ☐

B = ☐ E = ☐ H = ☐

C = ☐ F = ☐ I = ☐




J = ☐ M = ☐ P = ☐

K = ☐ N = ☐ Q = ☐

L = ☐ O = ☐ R = ☐

# CHAPTER 2 - UNDERSTANDING DECIMALS

**Write the Correct Comparison Symbol ( >, < or = ) in Each Box**

1 ) 0.91 ☐ 0.95

2 ) 9.12 ☐ 9.18

3 ) 7.67 ☐ 0.767

4 ) 7.96 ☐ 0.796

5 ) 8.13 ☐ 0.813

6 ) 9.62 ☐ 0.962

7 ) 8.74 ☐ 8.75

8 ) 4.32 ☐ 4.36

9 ) 6.52 ☐ 0.652

10 ) 0.89 ☐ 0.089

11 ) 9.02 ☐ 0.902

12 ) 8.99 ☐ 9

13 ) 2.17 ☐ 2.14

14 ) 6.85 ☐ 6.88

15 ) 4.65 ☐ 0.465

16 ) 7.53 ☐ 7.51

17 ) 7.51 ☐ 7.57

18 ) 0.35 ☐ 0.41

19 ) 6.9 ☐ 6.98

20 ) 1.09 ☐ 1.1

# CHAPTER 2 - UNDERSTANDING DECIMALS

**Write the Correct Comparison Symbol ( >, < or = ) in Each Box**

1 ) 0.51 ☐ 0.651

2 ) 1.20 ☐ 1.25

3 ) 7.02 ☐ 7.28

4 ) 9.71 ☐ 9.52

5 ) 0.84 ☐ 0.88

6 ) 8.42 ☐ 8.44

7 ) 2.6 ☐ 2.26

8 ) 0.25 ☐ 0.325

9 ) 8.504 ☐ 0.854

10 ) 1 ☐ 2.23

11 ) 7.456 ☐ 7.46

12 ) 0.75 ☐ 0.775

13 ) 9.15 ☐ 9.19

14 ) 1.66 ☐ 1.50

15 ) 2.22 ☐ 3.10

16 ) 2.65 ☐ 0.252

17 ) 8.20 ☐ 8.02

18 ) 3.109 ☐ 3.18

19 ) 0.07 ☐ 0.107

20 ) 8.23 ☐ 8.02

# CHAPTER 2 - UNDERSTANDING DECIMALS

**Write the Correct Comparison Symbol ( >, < or = ) in Each Box**

1 ) -3.65 ☐ -0.365

2 ) -1.02 ☐ -0.97

3 ) -1.75 ☐ -1.69

4 ) -7.59 ☐ -7.56

5 ) -9.4 ☐ -9.38

6 ) -3.45 ☐ -3.43

7 ) -7.28 ☐ -0.728

8 ) -7.68 ☐ -7.64

9 ) -6.76 ☐ -6.76

10 ) -8.24 ☐ -8.23

11 ) -2.47 ☐ -2.5

12 ) -3.19 ☐ -0.319

13 ) -8.58 ☐ -8.61

14 ) -1.35 ☐ -0.135

15 ) -2.06 ☐ -0.206

16 ) -7.82 ☐ -0.782

17 ) -1.31 ☐ -0.131

18 ) -3.76 ☐ -3.74

19 ) -9.27 ☐ -0.927

20 ) -3.35 ☐ -3.3

# CHAPTER 2 - UNDERSTANDING DECIMALS

**Write the Correct Comparison Symbol ( >, < or = ) in Each Box**

1 ) -0.65 ☐ -0.365

2 ) -1.20 ☐ -0.97

3 ) -1.66 ☐ -1.69

4 ) -7.65 ☐ -7.56

5 ) -9.22 ☐ -9.38

6 ) -3.50 ☐ -3.43

7 ) -0.28 ☐ -0.728

8 ) -7.54 ☐ -7.64

9 ) -6.67 ☐ -6.76

10 ) -8.18 ☐ -8.23

11 ) -2.56 ☐ -2.65

12 ) -0.19 ☐ -0.319

13 ) -8.87 ☐ -8.61

14 ) -1.23 ☐ -0.135

15 ) -0.06 ☐ -0.206

16 ) -7.00 ☐ -0.782

17 ) -0.31 ☐ -0.131

18 ) -3.33 ☐ -3.74

19 ) -0.27 ☐ -0.927

20 ) -3.22 ☐ -3.3

# CHAPTER 2 - UNDERSTANDING DECIMALS

**Write the Correct Comparison Symbol ( >, < or = ) in Each Box**

1 ) -2.92 ☐ -2.94

2 ) -7.46 ☐ -7.44

3 ) -7.97 ☐ -7.96

4 ) -5.44 ☐ -5.48

5 ) -2.53 ☐ -0.253

6 ) -0.63 ☐ -0.063

7 ) -8.86 ☐ -0.886

8 ) -4.42 ☐ -4.46

9 ) -9.01 ☐ -9.05

10 ) -7.07 ☐ -7.05

11 ) -6.85 ☐ -6.78

12 ) -1.65 ☐ -0.165

13 ) -0.23 ☐ -0.18

14 ) -8.34 ☐ -0.834

15 ) -2.93 ☐ -2.93

16 ) -8.98 ☐ -0.898

17 ) -6.26 ☐ -0.626

18 ) -2.09 ☐ -2.08

19 ) -1.19 ☐ -1.14

20 ) -7.04 ☐ -0.704

# CHAPTER 2 - UNDERSTANDING DECIMALS

**Write the Correct Comparison Symbol ( >, < or = ) in Each Box**

1 ) -5.90 ☐ -0.589

2 ) 7.23 ☐ 7.56

3 ) 3.80 ☐ 3.81

4 ) 1.52 ☐ 1.21

5 ) -0.700 ☐ -0.88

6 ) 1.40 ☐ 0.185

7 ) 1.42 ☐ 0.1123

8 ) -8.12 ☐ -0.806

9 ) 8.44 ☐ 8.44

10 ) 6.55 ☐ 6.56

11 ) 6.03 ☐ 6.54

12 ) -9.90 ☐ -0.996

13 ) -5.85 ☐ -5.8

14 ) -8.22 ☐ -8.39

15 ) -7.12 ☐ -7.21

16 ) 7.12 ☐ 0.7122

17 ) -9.22 ☐ -9.70

18 ) -1.36 ☐ -0.536

19 ) 0.44 ☐ 0.41

20 ) -2.55 ☐ -0.253

# CHAPTER 2 - UNDERSTANDING DECIMALS

**Write the Correct Comparison Symbol ( >, < or = ) in Each Box**

1 ) 1.4 ☐ 0.14

2 ) 5.38 ☐ 5.37

3 ) -7.59 ☐ -0.759

4 ) -7.36 ☐ -7.37

5 ) 9.4 ☐ 9.41

6 ) -5.19 ☐ -5.15

7 ) -1.16 ☐ -1.14

8 ) 5.83 ☐ 5.8

9 ) 9.49 ☐ 9.42

10 ) -2.31 ☐ -2.32

11 ) 9.18 ☐ 0.918

12 ) -5.45 ☐ -5.5

13 ) -2.44 ☐ -0.244

14 ) -7.55 ☐ -0.755

15 ) 4.84 ☐ 0.484

16 ) 9.12 ☐ 0.912

17 ) 4.69 ☐ 4.66

18 ) 3.48 ☐ 0.348

19 ) -6.64 ☐ -6.67

20 ) -5.89 ☐ -5.94

# CHAPTER 2 - UNDERSTANDING DECIMALS

**Write the Correct Comparison Symbol ( >, < or = ) in Each Box**

1 ) 0.4 ☐ 0.14

2 ) 5.205 ☐ 5.37

3 ) -0.59 ☐ -0.759

4 ) 7.44 ☐ 7.37

5 ) 9.44 ☐ 9.41

6 ) -5.04 ☐ -5.15

7 ) -1.12 ☐ -1.14

8 ) 5.83 ☐ 5.083

9 ) 9.50 ☐ 9.05

10 ) -2.31 ☐ -2.310

11 ) 0.18 ☐ 0.918

12 ) -5.45 ☐ -5.05

13 ) -0.44 ☐ -0.244

14 ) -0.55 ☐ -0.755

15 ) 0.84 ☐ 0.484

16 ) 0.12 ☐ 0.912

17 ) 4.62 ☐ 4.66

18 ) 0.48 ☐ 0.348

19 ) -6.22 ☐ -6.67

20 ) -5.99 ☐ -5.94

# CHAPTER 2 - UNDERSTANDING DECIMALS

**Write the Correct Comparison Symbol ( >, < or = ) in Each Box**

1 ) 6.51 ☐ 0.651

2 ) 1.19 ☐ 1.25

3 ) 7.2 ☐ 7.28

4 ) 9.61 ☐ 9.59

5 ) 0.83 ☐ 0.87

6 ) 8.76 ☐ 8.74

7 ) 2.6 ☐ 0.26

8 ) 3.25 ☐ 0.325

9 ) 8.54 ☐ 0.854

10 ) 1 ☐ 0.1

11 ) 7.5 ☐ 7.46

12 ) 7.75 ☐ 0.775

13 ) 9.16 ☐ 9.13

14 ) 1.66 ☐ 1.72

15 ) 2.98 ☐ 3.01

16 ) 2.55 ☐ 0.255

17 ) 8.29 ☐ 8.25

18 ) 3.19 ☐ 3.18

19 ) 1.07 ☐ 0.107

20 ) 8.23 ☐ 8.2

# CHAPTER 2 - UNDERSTANDING DECIMALS

**Write the Correct Comparison Symbol ( >, < or = ) in Each Box**

1 ) 6.52 ☐ 6.651

2 ) 1.20 ☐ 1.25

3 ) 7.002 ☐ 7.28

4 ) 9.61 ☐ 9.160

5 ) 0.87 ☐ 0.87

6 ) 7.76 ☐ 7.74

7 ) 2.8 ☐ 0.28

8 ) 0.33 ☐ 0.325

9 ) 1.54 ☐ 0.854

10 ) 2.1 ☐ 0.1

11 ) 7.5 ☐ 7.05

12 ) 0.075 ☐ 0.775

13 ) 9.20 ☐ 9.13

14 ) 0.66 ☐ 1.72

15 ) 2.09 ☐ 2.10

16 ) 2.05 ☐ 0.255

17 ) 8.30 ☐ 8.35

18 ) 3.20 ☐ 3.18

19 ) 1.700 ☐ 0.107

20 ) 8.30 ☐ 8.2

# CHAPTER 3 - DECIMALS (ADD)

# CHAPTER 3 - DECIMALS (ADD)

## Adding and Subtracting Decimals

Adding decimals is easy when you keep your work **neat**

To add decimals, follow these steps:

- Write down the numbers, one under the other, with the **decimal points lined up**
- **Put in zeros** so the numbers have the same length (see below for why that is OK)
- **Then add**, using column addition, remembering to put the decimal point in the
- answer




That's all there is to it: line up the decimal points, pad with zeros, then add normally.

# CHAPTER 3 - DECIMALS (ADD)

## Subtracting

To subtract, follow the same method: line up the decimal points, then subtract.

**Example: What is 7.368 – 1.15 ?**

Line up the decimal points:

$$\begin{array}{r} 7.368 \\ -\ 1.15 \end{array}$$

"Pad" with zeros:

$$\begin{array}{r} 7.368 \\ -\ 1.150 \end{array}$$

Subtract:

$$\begin{array}{r} 7.368 \\ -\ 1.150 \\ \hline 6.218 \end{array}$$

To check we can add the answer to the number subtracted:

**Example: Check that 7.368 minus 1.15 equals 6.218**

Let us try adding 6.218 to 1.15

Line up the decimal points:

$$\begin{array}{r} 6.218 \\ +\ 1.15 \end{array}$$

"Pad" with zeros:

$$\begin{array}{r} 6.218 \\ +\ 1.150 \end{array}$$

Add:

$$\begin{array}{r} 6.218 \\ +\ 1.150 \\ \hline 7.368 \end{array}$$

It matches the number we started with, so it checks out.

# CHAPTER 3 - DECIMALS (ADD)

*IN CLASS - NOTES*

# CHAPTER 3 - DECIMALS (ADD)

*IN CLASS - NOTES*

# CHAPTER 3 - DECIMALS (ADD)

## Add the below decimals using vertical algorithm

1) 10.6 + 13.3

2) 9.7 + 15.308

3) 15.2 + 6.8

4) 10.9 + 15.2

5) 13.5 + 7.3

6) 11.2 + 0.1

7) 1.2 + 4.7

8) 2.8 + 4.2

# CHAPTER 3 - DECIMALS (ADD)

## Add the below decimals using vertical algorithm

9) 12.7 + 7.5

10) 6.5 + 9.3

11) 8.4 + 14.7

12) 10.2 + 5.78

13) 12.2 + 1.1

14) 12.8 + 12.5

15) 4.5 + 5.7

16) 12.3 + 6.1

# CHAPTER 3 - DECIMALS (ADD)

## Add the below decimals using vertical algorithm

17) 7.317 + 4.6

18) 4.3 + 12.1

19) 6.8 + 7.3

20) 7.5 + 11.3

21) 13.4 + 6.2

22) 8.2 + 8.6

23) 15.1 + 1.5

24) 15.3 + 10.7

# CHAPTER 3 - DECIMALS (ADD)

## Add the below decimals using vertical algorithm

25) 16 + 0.3

26) 7.6 + 5.3

27) 14.2 + 8.1

28) 13.3 + 6.7

29) 4.6 + 5.1

30) 15.236 + 3.5

31) 38 + 14.9

32) 2.1 + 8.1

# CHAPTER 3 - DECIMALS (ADD)

## Add the below decimals using vertical algorithm

33) 42.66 + 22.6

34) 6.3 + 32.9

35) 29.287 + 43.3

36) 45.5 + 41.4

37) 27.4 + 39.7

38) 21.4 + 28.1

39) 25.461 + 15.2

40) 25.2 + 48.4

# CHAPTER 3 - DECIMALS (ADD)

## Add the below decimals using vertical algorithm

41) 31.6 + 33.5

42) 10.6 + 2.4

43) 25.56 + 38.8

44) 31 + 25.1

45) 35.6 + 17.2

46) 26.3 + 0.3

47) 36.5 + 36.8

48) 11.8 + 7.85

# CHAPTER 3 - DECIMALS (ADD)

## Add the below decimals using vertical algorithm

49) 12.4 + 45.8

50) 2.6 + 8.7

51) 11.2 + 38.2

52) 20.1 + 33.7

53) 35.6 + 22.6

54) 1.61 + 39.5

55) 48.5 + 34.3

56) 16.8 + 5.2

# CHAPTER 3 - DECIMALS (ADD)

## Add the below decimals using vertical algorithm

57) 29.25 + 19.09

58) 25 + 27.19

59) 11.6 + 30.234

60) 24.26 + 35.8

# CHAPTER 4 - ICAS



MATERIAL FOR THIS WEEK WILL BE
PROVIDED BY YOUR TUTOR IN THE CLASS

# CHAPTER 5 - DECIMALS (SUBTRACT)

# CHAPTER 5 - DECIMALS (SUBTRACT)

## Adding and Subtracting Decimals

Adding decimals is easy when you keep your work **neat**

To add decimals, follow these steps:

- Write down the numbers, one under the other, with the **decimal points lined up**
- **Put in zeros** so the numbers have the same length (see below for why that is OK)
- **Then add**, using column addition, remembering to put the decimal point in the
- answer




That's all there is to it: line up the decimal points, pad with zeros, then add normally.

# CHAPTER 5 - DECIMALS (SUBTRACT)

## Subtracting

To subtract, follow the same method: line up the decimal points, then subtract.

**Example: What is 7.368 – 1.15 ?**

| | |
|---|---|
| Line up the decimal points: | 7.368<br>– 1.15 |
| "Pad" with zeros: | 7.368<br>– 1.150 |
| Subtract: | 7.368<br>– 1.150<br>6.218 |

To check we can add the answer to the number subtracted:

**Example: Check that 7.368 minus 1.15 equals 6.218**

Let us try adding 6.218 to 1.15

| | |
|---|---|
| Line up the decimal points: | 6.218<br>+ 1.15 |
| "Pad" with zeros: | 6.218<br>+ 1.150 |
| Add: | 6.218<br>+ 1.150<br>7.368 |

It matches the number we started with, so it checks out.

# CHAPTER 5 - DECIMALS (SUBTRACT)

*IN CLASS - NOTES*

# CHAPTER 5 - DECIMALS (SUBTRACT)

*IN CLASS - NOTES*

# CHAPTER 5 - DECIMALS (SUBTRACT)

## Subtract the below decimals using vertical algorithm

1) 14.8 – 4.7

2) 10.5 – 7.1

3) 15.49 – 14.4

4) 4.3 – 2.8

5) 13.3 – 4.8

6) 6.2 – 4.8

7) 7.7 – 3.5

8) 10.8 – 5.6

# CHAPTER 5 - DECIMALS (SUBTRACT)

## Subtract the below decimals using vertical algorithm

9) 13.4 – 12.4

10) 7.92 – 3.3

11) 4.6 – 4.3

12) 14.93 – 7.8

13) 13.5 – 9.8

14) 12.96 – 2.1

15) 5.7 – 3.5

16) 10 – 8.5

# CHAPTER 5 - DECIMALS (SUBTRACT)

## Subtract the below decimals using vertical algorithm

17) 8.1 – 3.7

18) 10.2 – 4.77

19) 11.1 – 3.5

20) 16 – 4.92

21) 8.1 – 0.3

22) 11.31 – 10.894

23) 9.7 – 1.7

24) 12 – 9.4

# CHAPTER 5 - DECIMALS (SUBTRACT)

## Subtract the below decimals using vertical algorithm

25) 13.3 – 2.4

26) 14.7 – 5.5

27) 14.4 – 8.2

28) 12 – 10.8

29) 10.2 – 1.9

30) 1.9 – 1.4

31) 23.5 – 11.599

32) 21.5 – 5.6

# CHAPTER 5 - DECIMALS (SUBTRACT)

## Subtract the below decimals using vertical algorithm

33) 32.8 – 12.104

34) 17.3 – 10.5

35) 48.7 – 40.6

36) 41.3 – 2.3

37) 41.8 – 26.4

38) 41.9 – 22.6

39) 38.7 – 12.7

40) 16.7 – 1.9

# CHAPTER 5 - DECIMALS (SUBTRACT)

## Subtract the below decimals using vertical algorithm

41) 13.2 – 9.3

42) 35.1 – 7.2

43) 33 – 0.3

44) 28.1 – 16.347

45) 15.5 – 11.8

46) 12.8 – 9.9

47) 29.59 – 2.6

48) 21.2 – 15.6

# CHAPTER 5 - DECIMALS (SUBTRACT)

## Subtract the below decimals using vertical algorithm

49) 30.5 – 7.5

50) 29.5 – 17.5

51) 45.2 – 40.7

52) 38.4 – 23.44

53) 44.1 – 38.3

54) 36 – 1.985

55) 30.1 – 26.2

56) 41.2 – 3.5

# CHAPTER 5 - DECIMALS (SUBTRACT)

## Subtract the below decimals using vertical algorithm

57) 31.7 – 14.4

58) 32.5 – 8.71

59) 33.3 – 5.3

60) 48.2 – 28.274

# CHAPTER 6 - UNITS OF MEASUREMENT (CAPACITY)

# CHAPTER 6 - UNITS OF MEASUREMENT CAPACITY)

## Metric Volume

Volume is the amount of 3-dimensional space something takes up.

The two most common measurements of volume are:

- **Millilitres**
- **Litres**

A **millilitre** is a very small amount of liquid.
Here is a millilitre of milk in a teaspoon.
It only fills the bottom of the teaspoon!



The word millilitre literally means one thousandth ("milli") of a litre.
Millilitres are often written as **ml** (for short), so "100 ml" means "100 millilitres".

They can also be written **mL** (with a capital L so it doesn't look like "1")

**1 millilitre (ml) is also 1 cubic centimetre (cc)**

In other words 1 millilitre is exactly the same as a little **cube that is 1 cm on each side** (1 cubic centimetre).

# CHAPTER 6 - UNITS OF MEASUREMENT CAPACITY)

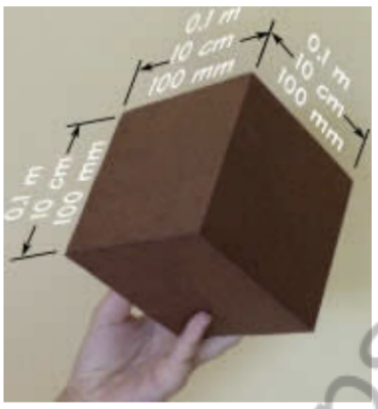
## Litre

A **litre** is just a bunch of millilitres put all together.
In fact, 1000 millilitres makes up 1 litre:

**1 litre = 1,000 millilitres**

Litres are often written as **L** (for short), so "3 L" means "3 Litres" (some people use lowercase **l**, but that looks too much like **1**).

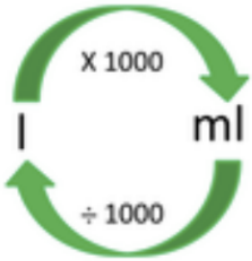
Milk, soda and other drinks are often sold in litres.




A cube that is 0.1 meters (10 cm or 100 mm) on each side contains 1 litre,



Volume:



# CHAPTER 6 - UNITS OF MEASUREMENT CAPACITY)

*IN CLASS - NOTES*

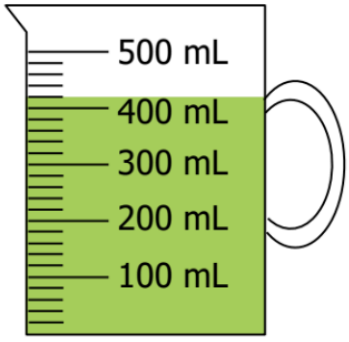
# CHAPTER 6 - UNITS OF MEASUREMENT CAPACITY)

*IN CLASS - NOTES*

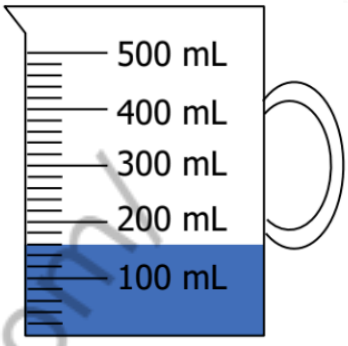
## CHAPTER 6 - UNITS OF MEASUREMENT CAPACITY)

### Reading a measuring cup (metric)

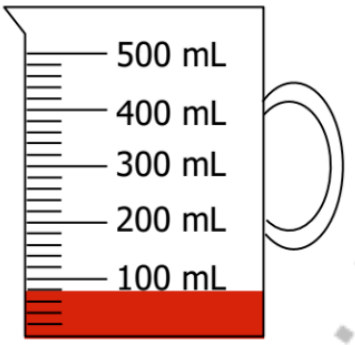
### Find the volume of the juice in milliliters (mL) in the following measuring cups.



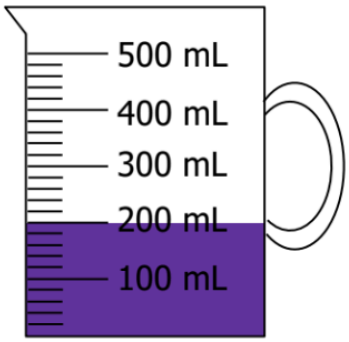

1) _____ mL



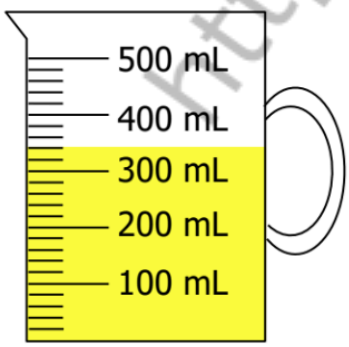

2) _____ mL



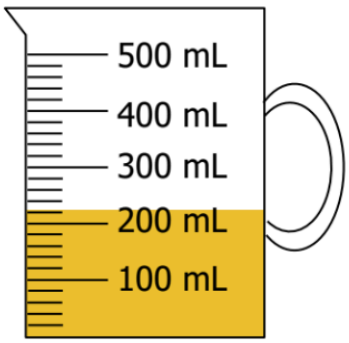

3) _____ mL




4) _____ mL




5) _____ mL

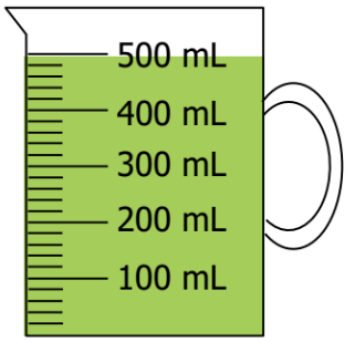



6) _____ mL

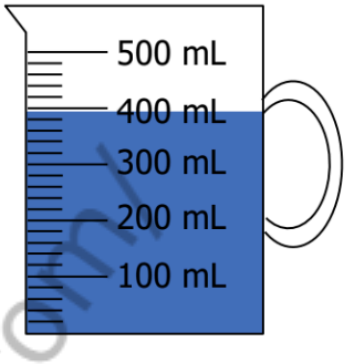
## CHAPTER 6 - UNITS OF MEASUREMENT CAPACITY)

### Reading a measuring cup (metric)

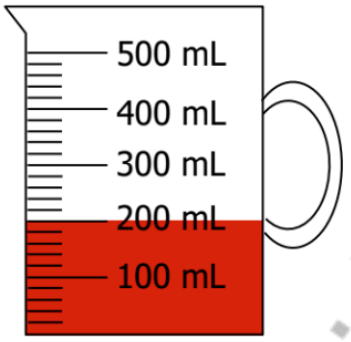
### Find the volume of the juice in milliliters (mL) in the following measuring cups.



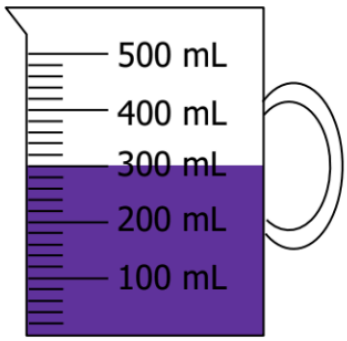

1) _____ mL



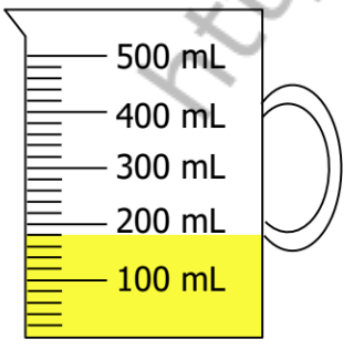

2) _____ mL



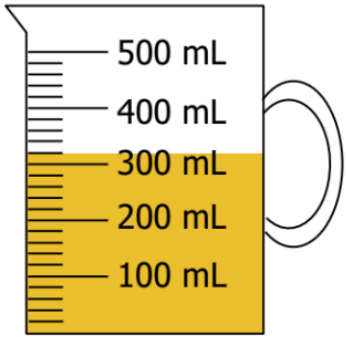

3) _____ mL




4) _____ mL




5) _____ mL




6) _____ mL

# CHAPTER 6 - UNITS OF MEASUREMENT CAPACITY)

## Metric units of capacity: liters and milliliters

### Convert litres to milliliters

**Note: 1 liter (L) = 1,000 milliliter (mL)**

1. 5 L = _____ mL
2. 22 L = _____ mL
3. 28 L = _____ mL
4. 27 L = _____ mL
5. 9 L = _____ mL
6. 78 L = _____ mL
7. 34 L = _____ mL
8. 42 L = _____ mL
9. 87 L = _____ mL
10. 84 L = _____ mL

### Convert milliliters to liters

11. 30,000 mL = _____ L
12. 7,000 mL = _____ L
13. 10,000 mL = _____ L
14. 6,000 mL = _____ L
15. 1,000 mL = _____ L
16. 5,000 mL = _____ L
17. 2,000 mL = _____ L
18. 4,000 mL = _____ L
19. 8,000 mL = _____ L
20. 40,000 mL = _____ L

## CHAPTER 6 - UNITS OF MEASUREMENT CAPACITY)

# Metric units of capacity: liters and milliliters

## Convert litres to milliliters

**Note: 1 liter (L) = 1,000 milliliter (mL)**

1. 49 L = _____ mL
2. 55 L = _____ mL
3. 43 L = _____ mL
4. 7 L = _____ mL
5. 66 L = _____ mL
6. 89 L = _____ mL
7. 4 L = _____ mL
8. 3 L = _____ mL
9. 99 L = _____ mL
10. 31 L = _____ mL

## Convert milliliters to liters

11. 30,000 mL = _____ L
12. 2,000 mL = _____ L
13. 6,000 mL = _____ L
14. 10,000 mL = _____ L
15. 20,000 mL = _____ L
16. 5,000 mL = _____ L
17. 40,000 mL = _____ L
18. 9,000 mL = _____ L
19. 1,000 mL = _____ L
20. 4,000 mL = _____ L

## CHAPTER 6 - UNITS OF MEASUREMENT CAPACITY)

# Metric units of capacity: liters and milliliters

## Convert litres to milliliters

**Note: 1 liter (L) = 1,000 milliliter (mL)**

1. 7 L = _____ mL
2. 62 L = _____ mL
3. 18 L = _____ mL
4. 5 L = _____ mL
5. 19 L = _____ mL
6. 38 L = _____ mL
7. 24 L = _____ mL
8. 52 L = _____ mL
9. 27 L = _____ mL
10. 23 L = _____ mL

## Convert milliliters to liters

11. 50,000 mL = _____ L
12. 77,000 mL = _____ L
13. 5,000 mL = _____ L
14. 62,000 mL = _____ L
15. 11,000 mL = _____ L
16. 65,000 mL = _____ L
17. 23,000 mL = _____ L
18. 40,000 mL = _____ L
19. 80,000 mL = _____ L
20. 4,000 mL = _____ L

## CHAPTER 6 - UNITS OF MEASUREMENT CAPACITY)

# Metric units of capacity: liters and milliliters

## Convert litres to milliliters

**Note: 1 liter (L) = 1,000 milliliter (mL)**

1. 4 L = _____ mL
2. 32 L = _____ mL
3. 33 L = _____ mL
4. 77 L = _____ mL
5. 69 L = _____ mL
6. 8 L = _____ mL
7. 46 L = _____ mL
8. 3 L = _____ mL
9. 59 L = _____ mL
10. 1 L = _____ mL

## Convert milliliters to liters

11. 85,000 mL = _____ L
12. 22,000 mL = _____ L
13. 41,000 mL = _____ L
14. 17,000 mL = _____ L
15. 37,000 mL = _____ L
16. 55,000 mL = _____ L
17. 57,000 mL = _____ L
18. 6,000 mL = _____ L
19. 11,000 mL = _____ L
20. 19,000 mL = _____ L

## CHAPTER 6 - UNITS OF MEASUREMENT CAPACITY)

## Metric units of capacity: liters and milliliters

### Convert litres to milliliters

**Note: 1 liter (L) = 1,000 milliliter (mL)**

1. 1 L = _____ mL
2. 20 L = _____ mL
3. 6 L = _____ mL
4. 70- L = _____ mL
5. 98 L = _____ mL
6. 73 L = _____ mL
7. 32 L = _____ mL
8. 29 L = _____ mL
9. 81L = _____ mL
10. 44 L = _____ mL

### Convert milliliters to liters

11. 60,000 mL = _____ L
12. 33,000 mL = _____ L
13. 12,000 mL = _____ L
14. 26,000 mL = _____ L
15. 13,000 mL = _____ L
16. 56,000 mL = _____ L
17. 7,000 mL = _____ L
18. 42,000 mL = _____ L
19. 18,000 mL = _____ L
20. 40,000 mL = _____ L

## CHAPTER 6 - UNITS OF MEASUREMENT CAPACITY)

## Metric units of capacity: liters and milliliters

### Convert litres to milliliters

**Note: 1 liter (L) = 1,000 milliliter (mL)**

1. 29 L = _____ mL
2. 95 L = _____ mL
3. 83 L = _____ mL
4. 79 L = _____ mL
5. 76 L = _____ mL
6. 309 L = _____ mL
7. 48 L = _____ mL
8. 312 L = _____ mL
9. 69 L = _____ mL
10. 111 L = _____ mL

### Convert milliliters to liters

11. 300,000 mL = _____ L
12. 29,000 mL = _____ L
13. 650,000 mL = _____ L
14. 150,000 mL = _____ L
15. 200,000 mL = _____ L
16. 59,000 mL = _____ L
17. 400,000 mL = _____ L
18. 64,000 mL = _____ L
19. 1,000 mL = _____ L
20. 4,000 mL = _____ L

# CHAPTER 6 - UNITS OF MEASUREMENT CAPACITY)

## Metric units of capacity: liters and milliliters

### Convert litres to milliliters

**Note: 1 liter (L) = 1,000 milliliter (mL)**

1. 107 L = _____ mL
2. 622 L = _____ mL
3. 138 L = _____ mL
4. 556 L = _____ mL
5. 129 L = _____ mL
6. 318 L = _____ mL
7. 254 L = _____ mL
8. 592 L = _____ mL
9. 297 L = _____ mL
10. 203 L = _____ mL

### Convert milliliters to liters

11. 505,000 mL = _____ L
12. 707,000 mL = _____ L
13. 578,000 mL = _____ L
14. 602,000 mL = _____ L
15. 131,000 mL = _____ L
16. 625,000 mL = _____ L
17. 273,000 mL = _____ L
18. 470,000 mL = _____ L
19. 840,000 mL = _____ L
20. 476,000 mL = _____ L

## CHAPTER 6 - UNITS OF MEASUREMENT CAPACITY)

# Metric units of capacity: liters and milliliters

## Convert litres to milliliters

**Note: 1 liter (L) = 1,000 milliliter (mL)**

1. 47 L = _____ mL
2. 352 L = _____ mL
3. 373 L = _____ mL
4. 737 L = _____ mL
5. 629 L = _____ mL
6. 81 L = _____ mL
7. 496 L = _____ mL
8. 23 L = _____ mL
9. 589 L = _____ mL
10. 188 L = _____ mL

## Convert milliliters to liters

11. 855,000 mL = _____ L
12. 272,000 mL = _____ L
13. 411,000 mL = _____ L
14. 157,000 mL = _____ L
15. 337,000 mL = _____ L
16. 535,000 mL = _____ L
17. 570,000 mL = _____ L
18. 6,000 mL = _____ L
19. 131,000 mL = _____ L
20. 19,000 mL = _____ L

# CHAPTER 7 - MEASUREMENT (LENGTH)

# CHAPTER 7 - MEASUREMENT (LENGTH)

*IN CLASS - NOTES*

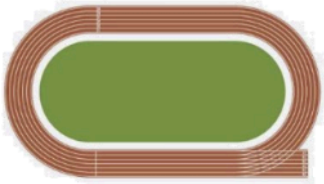
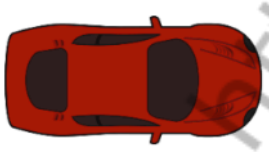
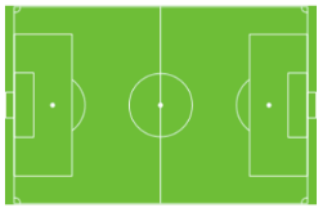
# CHAPTER 7 - MEASUREMENT (LENGTH)

*IN CLASS - NOTES*

# CHAPTER 7 - MEASUREMENT (LENGTH)

## Metric units of length: centimeters, meters and kilometers

## Circle the proper unit for each of the following.

| | | |
|---|---|---|
| Length of a calendar  | Length of track  | Distance travelled by a plane  |
| cm / m / km | cm / m / km | cm / m / km |
| Width of a shirt  | Height of a man  | Length of a pair of scissors  |
| cm / m / km | cm / m / km | cm / m / km |
| Distance travelled by a car  | Length of a soccer field  | Height of a tree  |
| cm / m / km | cm / m / km | cm / m / km |



**Note: We measure shorter lengths (smaller objects like pencils) in centimeters (cm) and longer lengths (like height) in meters (m). We measure longer distances in kilometers (km).**

# CHAPTER 7 - MEASUREMENT (LENGTH)

## Metric Units: millimeters and centimeters

**Note: 1 centimeter (cm) = 10 millimeters (mm)**

## Convert centimeters to millimeters

1. 96 cm = _____ mm
2. 95 cm = _____ mm
3. 39 cm = _____ mm
4. 44 cm = _____ mm
5. 12 cm = _____ mm
6. 63 cm = _____ mm
7. 37 cm = _____ mm
8. 55 cm = _____ mm
9. 83 cm = _____ mm
10. 92 cm = _____ mm

## Convert millimeters to centimeters

11. 61 mm = _____ cm
12. 26 mm = _____ cm
13. 52 mm = _____ cm
14. 89 mm = _____ cm
15. 90 mm = _____ cm
16. 96 mm = _____ cm
17. 75 mm = _____ cm
18. 60 mm = _____ cm
19. 38 mm = _____ cm
20. 14 mm = _____ cm

## CHAPTER 7 - MEASUREMENT (LENGTH)

## Metric Units: millimeters and centimeters

**Note: 1 centimeter (cm) = 10 millimeters (mm)**

### Convert the given measures to new units.

1. 70 cm = _____ mm
2. 30 cm = _____ mm
3. 90 mm = _____ cm
4. 20 cm = _____ mm
5. 80 mm = _____ cm
6. 40 mm = _____ cm
7. 60 mm = _____ cm
8. 90 cm = _____ mm
9. 30 mm = _____ cm
10. 10 cm = _____ mm
11. 40 cm = _____ mm
12. 50 cm = _____ mm
13. 70 mm = _____ cm
14. 50 mm = _____ cm
15. 60 cm = _____ mm
16. 20 mm = _____ cm
17. 80 cm = _____ mm
18. 10 mm = _____ cm
19. 10 mm = _____ cm
20. 40 mm = _____ cm

# CHAPTER 7 - MEASUREMENT (LENGTH)

## Metric Units: meters, centimeters and millimeters

**Note: 1 meter (m) = 100 centimeters (cm) = 1,000 millimeters (mm)**

## Convert to the units shown:

1. 61 m = _____ cm
2. 63 cm = _____ mm
3. 48 m = _____ mm
4. 44 m = _____ cm
5. 92 m = _____ cm
6. 59 m = _____ cm
7. 32 m = _____ cm
8. 53 m = _____ cm
9. 34 m = _____ mm
10. 14 m = _____ mm

## Convert to the units shown:

11. 8,000 cm = _____ m
12. 7,000 mm = _____ m
13. 6,000 cm = _____ m
14. 6,000 mm = _____ cm
15. 3,000 cm = _____ m
16. 8,000 mm = _____ m
17. 9,000 mm = _____ cm
18. 7,000 mm = _____ cm
19. 2,000 mm = _____ m
20. 1,000 mm = _____ cm

# CHAPTER 7 - MEASUREMENT (LENGTH)

## Metric Units: meters, centimeters and millimeters

**Note: 1 meter (m) = 100 centimeters (cm) = 1,000 millimeters (mm)**

## Convert to the units shown:

1. 91 m = _____ cm
2. 61 cm = _____ mm
3. 68 m = _____ mm
4. 43 m = _____ cm
5. 52 m = _____ cm
6. 99 m = _____ cm
7. 22 m = _____ cm
8. 56 m = _____ cm
9. 84 m = _____ mm
10. 18 m = _____ mm

## Convert to the units shown:

11. 1,000 cm = _____ m
12. 20,000 mm = _____ m
13. 3,000 cm = _____ m
14. 71,000 mm = _____ cm
15. 5,000 cm = _____ m
16. 29,000 mm = _____ m
17. 9,000 mm = _____ cm
18. 50,000 mm = _____ cm
19. 4,000 mm = _____ m
20. 86,000 mm = _____ cm

# CHAPTER 7 - MEASUREMENT (LENGTH)

## Metric Units: meters, centimeters and millimeters

**Note: 1 meter (m) = 100 centimeters (cm) = 1,000 millimeters (mm)**

## Convert to the units shown:

1. 11 m = _____ cm
2. 91 cm = _____ mm
3. 62 m = _____ mm
4. 23 m = _____ cm
5. 59 m = _____ cm
6. 19 m = _____ cm
7. 20 m = _____ cm
8. 86 m = _____ cm
9. 44 m = _____ mm
10. 10 m = _____ mm

## Convert to the units shown:

11. 19,000 cm = _____ m
12. 12,000 mm = _____ m
13. 11,000 cm = _____ m
14. 10,000 mm = _____ cm
15. 81,000 cm = _____ m
16. 17,000 mm = _____ m
17. 61,000 mm = _____ cm
18. 14,000 mm = _____ cm
19. 29,000 mm = _____ m
20. 22,000 mm = _____ cm

# CHAPTER 7 - MEASUREMENT (LENGTH)

## Metric Units: meters, centimeters and millimeters

**Note: 1 meter (m) = 100 centimeters (cm) = 1,000 millimeters (mm)**

## Convert to the units shown:

1. 55 m = _____ mm
2. 84 m = _____ cm
3. 48 m = _____ cm
4. 92 m = _____ cm
5. 87 cm = _____ mm
6. 21 m = _____ cm
7. 58 m = _____ cm
8. 40 m = _____ cm
9. 88 m = _____ cm
10. 91 m = _____ cm

## Convert to the units shown:

11. 6,000 cm = _____ m
12. 7,000 cm = _____ m
13. 2,000 mm = _____ m
14. 1,000 mm = _____ m
15. 4,000 cm = _____ m
16. 9,000 mm = _____ cm
17. 5,000 mm = _____ m
18. 4,000 mm = _____ m
19. 3,000 mm = _____ m
20. 2,000 cm = _____ m

# CHAPTER 7 - MEASUREMENT (LENGTH)

## Metric Units: meters, centimeters and millimeters

**Note: 1 meter (m) = 100 centimeters (cm) = 1,000 millimeters (mm)**

## Convert to the units shown:

1. 525 m = _____ mm
2. 14 m = _____ cm
3. 448 m = _____ cm
4. 972 m = _____ cm
5. 85 cm = _____ mm
6. 201 m = _____ cm
7. 568 m = _____ cm
8. 400 m = _____ cm
9. 68 m = _____ cm
10. 91 m = _____ cm

## Convert to the units shown:

11. 600 cm = _____ m
12. 1,000 cm = _____ m
13. 31,000 mm = _____ m
14. 8,000 mm = _____ m
15. 41,000 cm = _____ m
16. 900 mm = _____ cm
17. 9,000 mm = _____ m
18. 48,000 mm = _____ m
19. 3,000 mm = _____ m
20. 200 cm = _____ m

# CHAPTER 7 - MEASUREMENT (LENGTH)

## Metric Units: meters, centimeters and millimeters

**Note: 1 meter (m) = 100 centimeters (cm) = 1,000 millimeters (mm)**

## Convert to the units shown:

1. 5125 m = _____ mm
2. 19 m = _____ cm
3. 408 m = _____ cm
4. 902 m = _____ cm
5. 85 cm = _____ mm
6. 21 m = _____ cm
7. 5698 m = _____ cm
8. 4780 m = _____ cm
9. 618 m = _____ cm
10. 251 m = _____ cm

## Convert to the units shown:

11. 900 cm = _____ m
12. 100 cm = _____ m
13. 91,000 mm = _____ m
14. 800 mm = _____ m
15. 46,000 cm = _____ m
16. 98100 mm = _____ cm
17. 5,000 mm = _____ m
18. 48000 mm = _____ m
19. 1,000 mm = _____ m
20. 200 cm = _____ m

# CHAPTER 7 - MEASUREMENT (LENGTH)

## Metric Units: meters, centimeters and millimeters

**Note: 1 meter (m) = 100 centimeters (cm) = 1,000 millimeters (mm)**

## Convert to the units shown:

1. 24 m = _____ cm
2. 72 m = _____ cm
3. 77 cm = _____ mm
4. 37 m = _____ mm
5. 79 m = _____ cm
6. 77 m = _____ mm
7. 47 m = _____ mm
8. 85 m = _____ cm
9. 53 m = _____ mm
10. 45 m = _____ cm

## Convert to the units shown:

11. 8,000 mm = _____ cm
12. 1,000 cm = _____ m
13. 2,000 cm = _____ m
14. 3,000 cm = _____ m
15. 6,000 mm = _____ cm
16. 5,000 mm = _____ m
17. 4,000 mm = _____ cm
18. 4,000 mm = _____ m
19. 9,000 mm = _____ m
20. 7,000 mm = _____ m

# CHAPTER 8 - MEASUREMENT (DISTANCE)

# CHAPTER 8 - MEASUREMENT (DISTANCE)

*IN CLASS - NOTES*

# CHAPTER 8 - MEASUREMENT (DISTANCE)

*IN CLASS - NOTES*

# CHAPTER 8 - MEASUREMENT (DISTANCE)

## Convert - km to m

Example:

6.5km = _____ m

**1 km = 1000 m**
6.5 km = 6.5 x 1000 m
= **6500 m**

**Convert the following kilometers (km) to meters (m).**

| | |
|---|---|
| 1) 15.25 km = _____ m | 2) 8.6 km = _____ m |
| 3) 2.232 km = _____ m | 4) 64.248 km = _____ m |
| 5) 72.43 km = _____ m | 6) 56.2 km = _____ m |
| 7) 48 km = _____ m | 8) 60.366 km = _____ m |
| 9) 3.291 km = _____ m | 10) 88.52 km = _____ m |
| 11) 93 km = _____ m | 12) 7.608 km = _____ m |
| 13) 55.23 km = _____ m | 14) 97.5 km = _____ m |

# CHAPTER 8 - MEASUREMENT (DISTANCE)

## Convert - km to m

Example:

6.5km = _____ m

**1 km = 1000 m**
6.5 km = 6.5 x 1000 m
= **6500 m**

**Convert the following kilometers (km) to meters (m).**

| | |
|---|---|
| 1) 15km = _____ m | 2) 0.6 km = _____ m |
| 3) 2.22 km = _____ m | 4) 64 km = _____ m |
| 5) 3 km = _____ m | 6) 52 km = _____ m |
| 7) 8 km = _____ m | 8) 0.366 km = _____ m |
| 9) 1.111 km = _____ m | 10) 88 km = _____ m |
| 11) 93 km = _____ m | 12) 7.08 km = _____ m |
| 13) 55.3 km = _____ m | 14) 97.05 km = _____ m |

# CHAPTER 8 - MEASUREMENT (DISTANCE)

## Convert - m to km

Example:

2290 m = _____ km

**1000 m = 1 km**

2290 m = $\frac{2290}{1000}$

= **2.29** km

**Convert the following meters (m) to kilometers (km).**

| | |
|---|---|
| 1) 26000 m = _____ km | 2) 43250 m = _____ km |
| 3) 89600 m = _____ km | 4) 72321 m = _____ km |
| 5) 58500 m = _____ km | 6) 81654 m = _____ km |
| 7) 29000 m = _____ km | 8) 64370 m = _____ km |
| 9) 52900 m = _____ km | 10) 91880 m = _____ km |
| 11) 13320 m = _____ km | 12) 9400 m = _____ km |
| 13) 36910 m = _____ km | 14) 47200 m = _____ km |

# CHAPTER 8 - MEASUREMENT (DISTANCE)

## Convert - m to km

Example:

2290 m = _____ km

**1000 m = 1 km**

2290 m = $\frac{2290}{1000}$

= **2.29** km

**Convert the following meters (m) to kilometers (km).**

| | |
|---|---|
| 1) 2600 m = _____ km | 2) 432500 m = _____ km |
| 3) 89500 m = _____ km | 4) 2321 m = _____ km |
| 5) 585000 m = _____ km | 6) 01654 m = _____ km |
| 7) 290000 m = _____ km | 8) 4370 m = _____ km |
| 9) 52900 m = _____ km | 10) 91880 m = _____ km |
| 11) 14320 m = _____ km | 12) 4400 m = _____ km |
| 13) 89910 m = _____ km | 14) 25200 m = _____ km |

## CHAPTER 8 - MEASUREMENT (DISTANCE)

### KILOMETERS AND METERS

**Fill in the correct numbers.**

| | | | |
|---|---|---|---|
| 1.6 km = ☐ m | | 4,500 m = ☐ km | |
| 0.92 km = ☐ m | | 2,030 m = ☐ km | |
| 0.07 km = ☐ m | | 14,300 m = ☐ km | |
| 2.1 km = ☐ m | | 10,500 m = ☐ km | |
| 3.09 km = ☐ m | | 350 m = ☐ km | |

| | | | |
|---|---|---|---|
| 2 km 120 m = ☐ km | | 6.3 km = ☐ km ☐ m | |
| 3 km 880 m = ☐ km | | 5.15 km = ☐ km ☐ m | |
| 1 km 60 m = ☐ km | | 9.04 km = ☐ km ☐ m | |
| 13 km 500 m = ☐ km | | 2.87 km = ☐ km ☐ m | |
| 11 km 70 m = ☐ km | | 17.04 km = ☐ km ☐ m | |
| 22 km 80 m = ☐ km | | 21.1 km = ☐ km ☐ m | |

# CHAPTER 8 - MEASUREMENT (DISTANCE)

## KILOMETERS AND METERS

**Fill in the correct numbers.**

| | | | |
|---|---|---|---|
| 1.2 km = ☐ m | | 3,200 m = ☐ km | |
| 0.12 km = ☐ m | | 1,090 m = ☐ km | |
| 1.07 km = ☐ m | | 10,800 m = ☐ km | |
| 2.5 km = ☐ m | | 20,900 m = ☐ km | |
| 2.05 km = ☐ m | | 220 m = ☐ km | |

| | | | | | |
|---|---|---|---|---|---|
| 8 km 250 m = ☐ km | | 9.8 km = ☐ km | ☐ m | | |
| 6 km 330 m = ☐ km | | 6.33 km = ☐ km | ☐ m | | |
| 4 km 40 m = ☐ km | | 4.08 km = ☐ km | ☐ m | | |
| 10 km 900 m = ☐ km | | 2.51 km = ☐ km | ☐ m | | |
| 15 km 10 m = ☐ km | | 15.01 km = ☐ km | ☐ m | | |
| 24 km 30 m = ☐ km | | 23.2 km = ☐ km | ☐ m | | |

## CHAPTER 8 - MEASUREMENT (DISTANCE)

### KILOMETERS AND METERS

**Fill in the correct numbers.**

| | |
|---|---|
| 2.6 km = ☐ m | 4,570 m = ☐ km |
| 0.94 km = ☐ m | 2,450 m = ☐ km |
| 0.17 km = ☐ m | 14,220 m = ☐ km |
| 5.1 km = ☐ m | 9,500 m = ☐ km |
| 3.69 km = ☐ m | 345 m = ☐ km |

| | |
|---|---|
| 2 km 110 m = ☐ km | 6.7 km = ☐ km ☐ m |
| 3 km 670 m = ☐ km | 5.17 km = ☐ km ☐ m |
| 1 km 70 m = ☐ km | 9.08 km = ☐ km ☐ m |
| 12 km 500 m = ☐ km | 2.89 km = ☐ km ☐ m |
| 11 km 90 m = ☐ km | 16.14 km = ☐ km ☐ m |
| 21 km 80 m = ☐ km | 20.1 km = ☐ km ☐ m |

## CHAPTER 8 - MEASUREMENT (DISTANCE)

### KILOMETERS AND METERS

**Fill in the correct numbers.**

| | | | |
|---|---|---|---|
| 1.4 km = ☐ m | | 3,900 m = ☐ km | |
| 3.12 km = ☐ m | | 1,290 m = ☐ km | |
| 1.77 km = ☐ m | | 10,400 m = ☐ km | |
| 4.6 km = ☐ m | | 21,900 m = ☐ km | |
| 4.05 km = ☐ m | | 200 m = ☐ km | |

| | | | | | |
|---|---|---|---|---|---|
| 8 km 260 m = ☐ km | | 9.7 km = ☐ km | ☐ m | | |
| 6 km 340 m = ☐ km | | 6.43 km = ☐ km | ☐ m | | |
| 3 km 40 m = ☐ km | | 4.78 km = ☐ km | ☐ m | | |
| 10 km 910 m = ☐ km | | 2.50 km = ☐ km | ☐ m | | |
| 16 km 10 m = ☐ km | | 15.31 km = ☐ km | ☐ m | | |
| 23 km 30 m = ☐ km | | 24.2 km = ☐ km | ☐ m | | |

# CHAPTER 9 - MEASUREMENT (CAPACITY)

# CHAPTER 9 - MEASUREMENT (CAPACITY)

*IN CLASS - NOTES*

# CHAPTER 9 - MEASUREMENT (CAPACITY)

*IN CLASS - NOTES*

# CHAPTER 9 - MEASUREMENT (CAPACITY)

## Grams and Kilograms

A **gram** (g) is used to measure the weight or mass of very light objects.
A small paperclip weighs about a gram.

A **kilogram** (kg) is used to measure the weight or mass of heavier objects.
A one-liter bottle of water weighs about a kilogram.

**1 kilogram = 1,000 grams**

| | |
|---|---|
| 3.7 kg = _____ g | 6,200 g = _____ kg |
| 3.7 kg x 1,000 = 3,700 g | 6,200 ÷ 1,000 = 6.2 kg |
| 3 kg = 3,700 g | 6,200 g = 6.2 kg |

**1.** A pencil weighs about.... **a.** 3 grams **b.** 5000 grams **c.** 1.2 kilograms

**2.** A gallon of milk weighs about... **a.** 75 grams **b.** 3.9 kilograms **c.** 39 kilograms

**3.** A pineapple weighs about... **a.** 7.2 kilograms **b.** 52 kilograms **c.** 222 grams

**4.** 8.7 kg = _____ g

**5.** 2,200 g = _____ kg

**6.** 5,100 g = _____ kg

**7.** 7.1 kg = _____ g

**8.** 12,000 g = _____ kg

**9.** 35.7 kg = _____ g

**10.** June's pet guinea pig weighs 950 grams. Larry's pet rabbit weighs 2.1 kilograms. How much more does Larry's pet weigh than June's? Explain how you found your answer.

_____

_____

_____

# CHAPTER 9 - MEASUREMENT (CAPACITY)

## Grams and Kilograms

A **gram** (g) is used to measure the weight or mass of very light objects.
A small paperclip weighs about a gram.

A **kilogram** (kg) is used to measure the weight or mass of heavier objects.
A one-liter bottle of water weighs about a kilogram.

**1 kilogram = 1,000 grams**

| | |
|---|---|
| 3 kg = _____ g | 6,000 g = _____ kg |
| 3 kg x 1,000 = 3,000 g | 6,000 ÷ 1,000 = 6 kg |
| 3 kg = 3,000 g | 6,000 g = 6 kg |

**1.** A squirrel weighs about.... **a.** 10 grams **b.** 100 grams **c.** 1 kilogram

**2.** A cell phone weighs about... **a.** 1 gram **b.** 120 grams **c.** 2 kilograms

**3.** A watermelon weighs about... **a.** 500 grams **b.** 2 kilograms **c.** 13 kilograms

**4.** 8 kg = _____ g

**5.** 2,000 g = _____ kg

**6.** 5,000 g = _____ kg

**7.** 7 kg = _____ g

**8.** 10,000 g = _____ kg

**9.** 30 kg = _____ g

**10.** Jan's cat weighs 4 kg. Carl's cat weighs 2,900 grams. Whose cat is heavier? Explain.

_____

_____

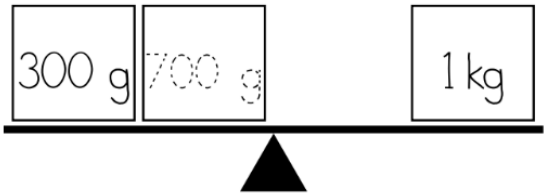
_____

# CHAPTER 9 - MEASUREMENT (CAPACITY)

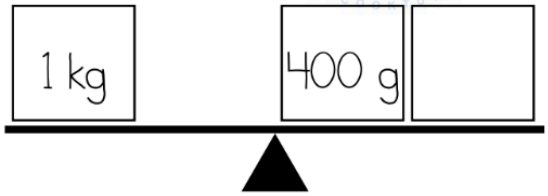
## BALANCE THE SCALES

**Make the scales balance by filling in the correct weight.**

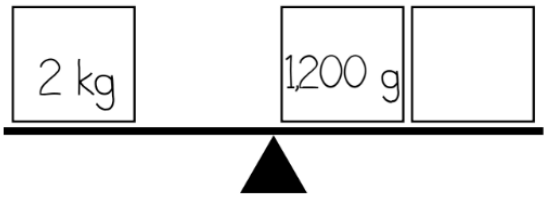
a.



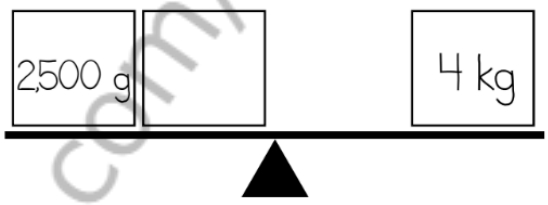

b.



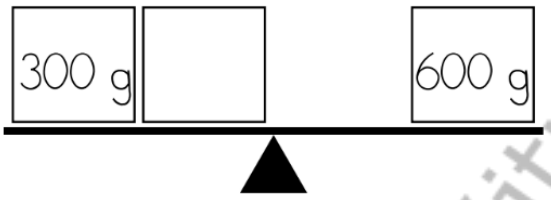

c.



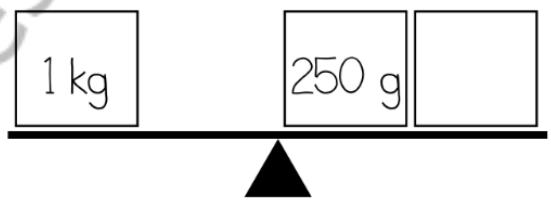

d.



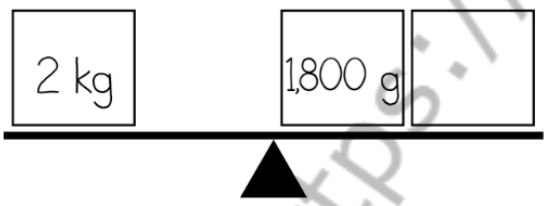

e.



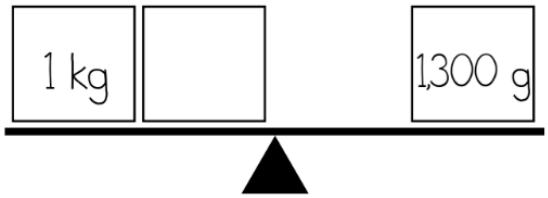

f.



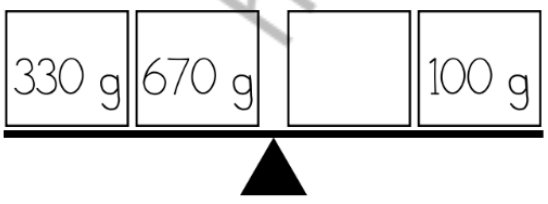

g.



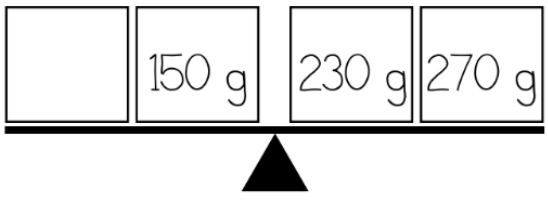

h.




★




★



# CHAPTER 9 - MEASUREMENT (CAPACITY)

## COMPARING KILOGRAMS AND GRAMS

**Compare the units of mass by using >, < or =**

| | | | | | |
|---|---|---|---|---|---|
| 2.3 kg | | 2,400 g | 2,200 g | | 2.1 kg |
| 14.92 kg | | 15,200 g | 3,009 g | | 3.02 kg |
| 3.03 kg | | 3,030 g | 2,003 g | | 2.02 kg |
| 17.26 kg | | 17,600 g | 3,880 g | | 3.88 kg |
| 4.42 kg | | 4,500 g | 10,650 g | | 10.65 kg |

| | | | | | |
|---|---|---|---|---|---|
| 1 kg 720 g | | 1.72 kg | 1.25 kg | | 1 kg 250 g |
| 2 kg 3 g | | 2.03 kg | 6.63 kg | | 6 kg 74 g |
| 3 kg 80 g | | 3.08 kg | 1.94 kg | | 1 kg 950 g |
| 5 kg 40 g | | 5.31 kg | 4.05 kg | | 4 kg 400 g |
| 6 kg 70 g | | 6.05 kg | 4.13 kg | | 4 kg 130 g |
| 1 kg 230 g | | 1.23 kg | 6.25 kg | | 6 kg 26 g |

# CHAPTER 9 - MEASUREMENT (CAPACITY)

## COMPARING KILOGRAMS AND GRAMS

**Compare the units of mass by using >, < or =**

| | | | | | |
|---|---|---|---|---|---|
| 2.5 kg | ☐ | 2,600 g | 2,500 g | ☐ | 2.3 kg |
| 15.12 kg | ☐ | 15,210 g | 3,113 g | ☐ | 3.12 kg |
| 6.05 kg | ☐ | 6,050 g | 6,009 g | ☐ | 6.09 kg |
| 18.56 kg | ☐ | 18,060 g | 9,990 g | ☐ | 9.99 kg |
| 8.22 kg | ☐ | 8,023 g | 12,130 g | ☐ | 12.12 kg |

| | | | | | |
|---|---|---|---|---|---|
| 3 kg 980 g | ☐ | 3.98 kg | 5.75 kg | ☐ | 5 kg 750 g |
| 1 kg 6 g | ☐ | 1.05 kg | 4.23 kg | ☐ | 4 kg 23 g |
| 4 kg 90 g | ☐ | 4.09 kg | 6.44 kg | ☐ | 6 kg 500 g |
| 9 kg 60 g | ☐ | 9.51 kg | 3.09 kg | ☐ | 3 kg 900 g |
| 7 kg 70 g | ☐ | 7.06 kg | 7.11 kg | ☐ | 7 kg 110 g |
| 2 kg 120 g | ☐ | 2.12 kg | 8.15 kg | ☐ | 8 kg 15 g |

# CHAPTER 9 - MEASUREMENT (CAPACITY)

## COMPARING KILOGRAMS AND GRAMS

**Compare the units of mass by using >, < or =**

| | | | | | |
|---|---|---|---|---|---|
| 2.4 kg | ☐ | 2,400 g | 2,200 g | ☐ | 2.2 kg |
| 15.25 kg | ☐ | 16,200 g | 4,009 g | ☐ | 4.02 kg |
| 5.03 kg | ☐ | 5,030 g | 6,003 g | ☐ | 9.02 kg |
| 15.26 kg | ☐ | 12,600 g | 3,900 g | ☐ | 3.88 kg |
| 4.40 kg | ☐ | 4,440 g | 10,780 g | ☐ | 10.65 kg |

| | | | | | |
|---|---|---|---|---|---|
| 1 kg 780 g | ☐ | 1.78 kg | 1.50 kg | ☐ | 1 kg 500 g |
| 2 kg 2 g | ☐ | 2.09 kg | 8.63 kg | ☐ | 9 kg 74 g |
| 3 kg 800 g | ☐ | 3.08 kg | 1.94 kg | ☐ | 1 kg 94 g |
| 5 kg 40 g | ☐ | 5.040 kg | 4.5 kg | ☐ | 4 kg 50 g |
| 6 kg 600 g | ☐ | 6.6 kg | 4.15 kg | ☐ | 4 kg 150 g |
| 1 kg 330 g | ☐ | 1.33 kg | 6.22 kg | ☐ | 6 kg 22 g |

# CHAPTER 9 - MEASUREMENT (CAPACITY)

## MILLILITERS AND LITERS

A **liter** (L) and a **milliliter** (mL) are both units for measuring capacity, or volume, in the metric system.


This bottle holds 1 liter of water.

To convert liters to milliliters, multiply by 1,000.

A milliliter is about 4 drops of water.

To convert milliliters to liters, divide by 1,000.



**1.** 6,000 mL = _____ L

**2.** 7 L = _____ mL

**3.** 3.12 L = _____ mL

**4.** 500 mL = _____ L

**5.** 760 mL = _____ L

**6.** 2.42 L = _____ mL

**7.** 8.1 L = _____ mL

**8.** 5,210 mL = _____ L

**9.** 41,000 mL = _____ L

**10.** 0.4 L = _____ mL

**11.** 90,000 mL = _____ L

**12.** 720 L = _____ mL

**13.** You have 1 L of milk. You drink 250 mL. How much milk do you have left?

# CHAPTER 9 - MEASUREMENT (CAPACITY)

## MILLILITERS AND LITERS

A **liter** (L) and a **milliliter** (mL) are two units for measuring capacity in the metric system.


This bottle holds 1 liter of water.

A milliliter is about 20 drops of water.



1. Mr. Franklin filled a bucket with water to clean his floor. Does his bucket probably hold 9 liters or 9 milliliters of water? _____

2. A baker adds half of a teaspoon of vanilla to her cake recipe. Did she use 2.5 L or 2.5 mL of vanilla? _____

3. Chris bought a cup of hot chocolate. Does his cup probably hold 400 liters or 400 milliliters of hot chocolate? _____

4. Kaylee bought juice for her friends to drink at her birthday party. Did she probably buy 5 L of juice or 5 mL? _____

5. Miss Marge has a large fish tank in her office. Does her fish tank hold 100 liters or 100 mL of water? _____

# CHAPTER 9 - MEASUREMENT (CAPACITY)

## MILLILITERS AND LITERS

A **liter** (L) and a **milliliter** (mL) are two units for measuring capacity in the metric system.

The bottle pictured at the left holds 1 L of water.

About twenty drops of water equals 1 mL.


To convert liters to milliliters, multiply by 1,000.

9 L x 1,000 = 9,000 mL

To convert milliliters to liters, divide by 1,000.

13,000 mL ÷ 1,000 = 13 L

Determine which amount is more. Write the larger amount on the line. If the amounts are equal, write the word *equal* on the line.

**1.** 3 L or 300 mL of milk **1.** _____

**2.** 10,000 mL or 10 L of juice **2.** _____

**3.** 60 L or 60,000 mL of vegetable oil **3.** _____

**4.** 140,000 mL or 1,400 L of water **4.** _____

**5.** 37 L or 38,000 mL of soap **5.** _____

**6.** 500 mL or 1 L of vinegar **6.** _____

**7.** 9 L or 950 mL of maple syrup **7.** _____

**8.** 7,000 mL or 7 L of cleaning fluid **8.** _____

**9.** 10,100 mL or 10 L of gasoline **9.** _____

**10.** 8 L or 8,001 mL of jelly **10.** _____

**11.** 66,000 mL or 66 L of lemonade **11.** _____

**12.** 801 L or 810,000 mL of honey **12.** _____

# CHAPTER 9 - MEASUREMENT (CAPACITY)

## COMPARING LITERS AND MILLILITERS

**Compare the units of volume by using >, < or =**

| | | | | | |
|---|---|---|---|---|---|
| 0.2 ℓ | ☐ | 300 ml | 3,600 ml | ☐ | 3.5 ℓ |
| 1.6 ℓ | ☐ | 1,700 ml | 2,005 ml | ☐ | 2.05 ℓ |
| 0.7 ℓ | ☐ | 700 ml | 4,015 ml | ☐ | 4.14 ℓ |
| 2.01 ℓ | ☐ | 2,100 ml | 990 ml | ☐ | 0.99 ℓ |
| 0.09 ℓ | ☐ | 800 ml | 1,201 ml | ☐ | 1.2 ℓ |

| | | | | | |
|---|---|---|---|---|---|
| 4 ℓ 350 ml | ☐ | 4.35 ℓ | 8.67 ℓ | ☐ | 8 ℓ 670 ml |
| 3 ℓ 6 ml | ☐ | 3.6 ℓ | 55.12 ℓ | ☐ | 55 ℓ 13 ml |
| 2 ℓ 80 ml | ☐ | 2.08 ℓ | 3.01 ℓ | ☐ | 3 ℓ 100 ml |
| 5 ℓ 60 ml | ☐ | 5.61 ℓ | 12.05 ℓ | ☐ | 12 ℓ 500 ml |
| 2 ℓ 12 ml | ☐ | 2.01 ℓ | 14.1 ℓ | ☐ | 14 ℓ 100 ml |

# CHAPTER 9 - MEASUREMENT (CAPACITY)

## COMPARING LITERS AND MILLILITERS

**Compare the units of volume by using >, < or =**

| | | | | | |
|---|---|---|---|---|---|
| 0.3 ℓ | ☐ | 400 ml | 5,800 ml | ☐ | 5.7 ℓ |
| 1.9 ℓ | ☐ | 1,950 ml | 1,009 ml | ☐ | 1.08 ℓ |
| 0.2 ℓ | ☐ | 200 ml | 2,016 ml | ☐ | 2.15 ℓ |
| 5.01 ℓ | ☐ | 5,100 ml | 880 ml | ☐ | 0.88 ℓ |
| 0.07 ℓ | ☐ | 700 ml | 1,551 ml | ☐ | 1.5 ℓ |

| | | | | | |
|---|---|---|---|---|---|
| 3 ℓ 360 ml | ☐ | 3.36 ℓ | 4.85 ℓ | ☐ | 4 ℓ 850 ml |
| 2 ℓ 2 ml | ☐ | 2.4 ℓ | 16.12 ℓ | ☐ | 16 ℓ 13 ml |
| 1 ℓ 80 ml | ☐ | 1.08 ℓ | 2.08 ℓ | ☐ | 2 ℓ 100 ml |
| 7 ℓ 80 ml | ☐ | 7.81 ℓ | 13.08 ℓ | ☐ | 13 ℓ 800 ml |
| 4 ℓ 42 ml | ☐ | 4.04 ℓ | 18.6 ℓ | ☐ | 18 ℓ 600 ml |
| 9 ℓ 90 ml | ☐ | 9.09 ℓ | 10.04 ℓ | ☐ | 10 ℓ 34 ml |

# CHAPTER 9 - MEASUREMENT (CAPACITY)

## COMPARING LITERS AND MILLILITERS

**Compare the units of volume by using >, < or =**

| | | | | | |
|---|---|---|---|---|---|
| 0.6 ℓ | ☐ | 500 ml | 5,900 ml | ☐ | 6.7 ℓ |
| 2.9 ℓ | ☐ | 2,950 ml | 1,900 ml | ☐ | 1.09 ℓ |
| 0.6 ℓ | ☐ | 900 ml | 2,017 ml | ☐ | 2.15 ℓ |
| 7.01 ℓ | ☐ | 7,100 ml | 890 ml | ☐ | 0.89 ℓ |
| 0.89 ℓ | ☐ | 700 ml | 1,566 ml | ☐ | 1.6 ℓ |

| | | | | | |
|---|---|---|---|---|---|
| 3 ℓ 600 ml | ☐ | 3.06 ℓ | 4.889 ℓ | ☐ | 4 ℓ 889 ml |
| 2 ℓ 200 ml | ☐ | 2.4 ℓ | 18.12 ℓ | ☐ | 18ℓ 130 ml |
| 1 ℓ 8 ml | ☐ | 1.08 ℓ | 4.08 ℓ | ☐ | 4ℓ 800 ml |
| 7 ℓ 80 ml | ☐ | 7.08 ℓ | 3.08 ℓ | ☐ | 3 ℓ 800 ml |
| 4 ℓ 420 ml | ☐ | 4.42 ℓ | 15.6 ℓ | ☐ | 15 ℓ 900 ml |
| 9 ℓ 900 ml | ☐ | 9.09 ℓ | 10.04 ℓ | ☐ | 10 ℓ 340 ml |

# CHAPTER 9 - MEASUREMENT (CAPACITY)

## CONVERTING LITERS AND MILLILITERS

**Complete the tables below and answer the questions that follow.**

| liters | 1 | | 9 | |
|---|---|---|---|---|
| milliliters | | 5,000 | | 30,000 |

rule: multiply by 1,000

| milliliters | 4,000 | | | 550,000 |
|---|---|---|---|---|
| liters | | 6 | 23 | |

rule: divide by 1,000

a. How many liters are in 5,000 milliliters? _____

b. How many milliliters are in 23 liters? _____

c. How many milliliters are in 9 liters? _____

d. How many liters are in 550,000 milliliters? _____

e. How many liters are in 20,000 milliliters? _____

f. How many milliliters are in 100 liters? _____

g. How many milliliters are in 11 liters? _____

h. How many liters are in 890,000 milliliters? _____

i. Brenda has a 1 liter bottle of shampoo that is only half-full. About how many milliliters of shampoo does she have in the bottle? _____

j. Mr. Perkins changed the oil in his car. He bought 6 liters of oil. He put 4,500 mL in his car. How many milliliters of oil did he have left? _____

# CHAPTER 10 - MEASUREMENT (WEIGHT)

# CHAPTER 10 - MEASUREMENT (WEIGHT)

*IN CLASS - NOTES*

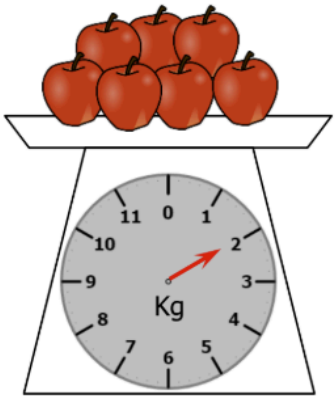
# CHAPTER 10 - MEASUREMENT (WEIGHT)

*IN CLASS - NOTES*

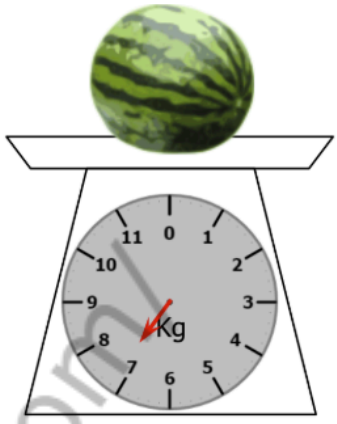
# CHAPTER 10 - MEASUREMENT (WEIGHT)

## READING A SCALE (KILOGRAMS)

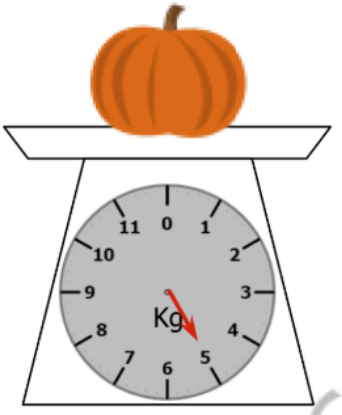
**Find the weight of the following objects.**



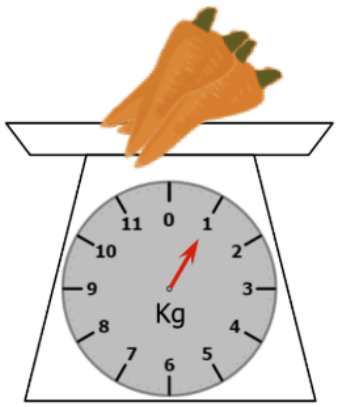

1) Weight: _____ kg



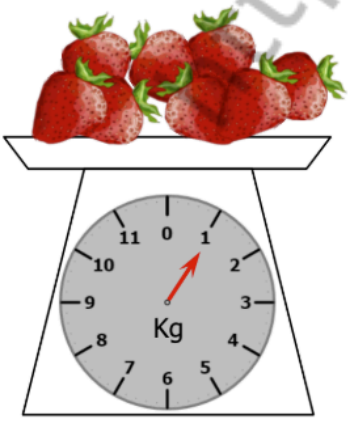

2) Weight: _____ kg



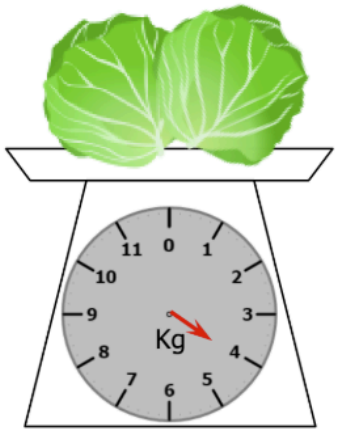

3) Weight: _____ kg




4) Weight: _____ kg




5) Weight: _____ kg




6) Weight: _____ kg

# CHAPTER 10 - MEASUREMENT (WEIGHT)

## Metric units of mass: kilograms and grams

**Note: 1 kilogram (kg) = 1,000 grams (gm)**

## Convert kilograms to grams

1. 16 kg = _____ g
2. 6 kg = _____ g
3. 8 kg = _____ g
4. 2 kg = _____ g
5. 4 kg = _____ g
6. 50 kg = _____ g
7. 83 kg = _____ g
8. 99 kg = _____ g
9. 69 kg = _____ g
10. 7 kg = _____ g

## Convert grams to kilograms

11. 200,000 g = _____ kg
12. 300,000 g = _____ kg
13. 80,000 g = _____ kg
14. 100,000 g = _____ kg
15. 400,000 g = _____ kg
16. 10,000 g = _____ kg
17. 40,000 g = _____ kg
18. 70,000 g = _____ kg
19. 60,000 g = _____ kg
20. 50,000 g = _____ kg

# CHAPTER 10 - MEASUREMENT (WEIGHT)

## Metric units of mass: kilograms and grams

**Note: 1 kilogram (kg) = 1,000 grams (gm)**

## Convert kilograms to grams

1. 58 kg = _____ g
2. 16 kg = _____ g
3. 6 kg = _____ g
4. 57 kg = _____ g
5. 45 kg = _____ g
6. 3 kg = _____ g
7. 67 kg = _____ g
8. 4 kg = _____ g
9. 21 kg = _____ g
10. 86 kg = _____ g

## Convert grams to kilograms

11. 20,000 g = _____ kg
12. 200,000 g = _____ kg
13. 400,000 g = _____ kg
14. 40,000 g = _____ kg
15. 80,000 g = _____ kg
16. 100,000 g = _____ kg
17. 300,000 g = _____ kg
18. 70,000 g = _____ kg
19. 30,000 g = _____ kg
20. 60,000 g = _____ kg

# CHAPTER 10 - MEASUREMENT (WEIGHT)

## Metric units of mass: kilograms and grams

**Note: 1 kilogram (kg) = 1,000 grams (gm)**

## Convert kilograms to grams

1. 7 kg = _____ g
2. 5 kg = _____ g
3. 33 kg = _____ g
4. 37 kg = _____ g
5. 3 kg = _____ g
6. 4 kg = _____ g
7. 60 kg = _____ g
8. 9 kg = _____ g
9. 6 kg = _____ g
10. 46 kg = _____ g

## Convert grams to kilograms

11. 400,000 g = _____ kg
12. 300,000 g = _____ kg
13. 30,000 g = _____ kg
14. 90,000 g = _____ kg
15. 70,000 g = _____ kg
16. 60,000 g = _____ kg
17. 200,000 g = _____ kg
18. 10,000 g = _____ kg
19. 100,000 g = _____ kg
20. 80,000 g = _____ kg

# CHAPTER 10 - MEASUREMENT (WEIGHT)

## Metric units of mass: kilograms and grams

**Note: 1 kilogram (kg) = 1,000 grams (gm)**

## Convert kilograms to grams

1. 96 kg = _____ g
2. 21 kg = _____ g
3. 6 kg = _____ g
4. 20 kg = _____ g
5. 1 kg = _____ g
6. 90 kg = _____ g
7. 73 kg = _____ g
8. 49 kg = _____ g
9. 9 kg = _____ g
10. 71 kg = _____ g

## Convert grams to kilograms

11. 210,000 g = _____ kg
12. 310,000 g = _____ kg
13. 523,000 g = _____ kg
14. 120,000 g = _____ kg
15. 444,000 g = _____ kg
16. 710,000 g = _____ kg
17. 123,000 g = _____ kg
18. 720,000 g = _____ kg
19. 620,000 g = _____ kg
20. 530,000 g = _____ kg

# CHAPTER 10 - MEASUREMENT (WEIGHT)

## Metric units of mass: kilograms and grams

**Note: 1 kilogram (kg) = 1,000 grams (gm)**

## Convert kilograms to grams

1. 8 kg = _____ g
2. 76 kg = _____ g
3. 23 kg = _____ g
4. 27 kg = _____ g
5. 15 kg = _____ g
6. 30 kg = _____ g
7. 97 kg = _____ g
8. 43 kg = _____ g
9. 1 kg = _____ g
10. 66 kg = _____ g

## Convert grams to kilograms

11. 22,000 g = _____ kg
12. 220,000 g = _____ kg
13. 300,000 g = _____ kg
14. 90,000 g = _____ kg
15. 50,000 g = _____ kg
16. 120,000 g = _____ kg
17. 378,000 g = _____ kg
18. 78,000 g = _____ kg
19. 34,000 g = _____ kg
20. 617,000 g = _____ kg

# CHAPTER 10 - MEASUREMENT (WEIGHT)

## Metric units of mass: kilograms and grams

**Note: 1 kilogram (kg) = 1,000 grams (gm)**

## Convert kilograms to grams

1. 73 kg = _____ g
2. 51 kg = _____ g
3. 313 kg = _____ g
4. 307 kg = _____ g
5. 30 kg = _____ g
6. 42 kg = _____ g
7. 602 kg = _____ g
8. 945 kg = _____ g
9. 6 kg = _____ g
10. 96 kg = _____ g

## Convert grams to kilograms

11. 230,000 g = _____ kg
12. 123,000 g = _____ kg
13. 30,000 g = _____ kg
14. 220,000 g = _____ kg
15. 700,000 g = _____ kg
16. 90,000 g = _____ kg
17. 100,000 g = _____ kg
18. 140,000 g = _____ kg
19. 120,000 g = _____ kg
20. 860,000 g = _____ kg

# CHAPTER 10 - MEASUREMENT (WEIGHT)

## Metric units of mass: kilograms and grams

**Note: 1 kilogram (kg) = 1,000 grams (gm)**

## Convert kilograms to grams

1. 106 kg = _____ g
2. 61 kg = _____ g
3. 8 kg = _____ g
4. 2 kg = _____ g
5. 49 kg = _____ g
6. 500 kg = _____ g
7. 813 kg = _____ g
8. 99 kg = _____ g
9. 609 kg = _____ g
10. 729 kg = _____ g

## Convert grams to kilograms

11. 600,000 g = _____ kg
12. 900,000 g = _____ kg
13. 1,000 g = _____ kg
14. 180,000 g = _____ kg
15. 4,000 g = _____ kg
16. 50,000 g = _____ kg
17. 24,000 g = _____ kg
18. 71,000 g = _____ kg
19. 640,000 g = _____ kg
20. 537,000 g = _____ kg

# CHAPTER 10 - MEASUREMENT (WEIGHT)

## Metric units of mass: kilograms and grams

**Note: 1 kilogram (kg) = 1,000 grams (gm)**

## Convert kilograms to grams

1. 18 kg = _____ g
2. 11 kg = _____ g
3. 9 kg = _____ g
4. 97 kg = _____ g
5. 425 kg = _____ g
6. 7 kg = _____ g
7. 607 kg = _____ g
8. 3 kg = _____ g
9. 211 kg = _____ g
10. 816 kg = _____ g

## Convert grams to kilograms

11. 987,000 g = _____ kg
12. 6,000 g = _____ kg
13. 55,000 g = _____ kg
14. 400,000 g = _____ kg
15. 1,000 g = _____ kg
16. 10,000 g = _____ kg
17. 589,000 g = _____ kg
18. 9,000 g = _____ kg
19. 45,000 g = _____ kg
20. 570,000 g = _____ kg

# CHAPTER 10 - MEASUREMENT (WEIGHT)

## Metric units of mass: kilograms and grams

**Note: 1 kilogram (kg) = 1,000 grams (gm)**

## Convert kilograms to grams

1. 1kg = _____ g
2. 5 kg = _____ g
3. 333 kg = _____ g
4. 77 kg = _____ g
5. 32 kg = _____ g
6. 8 kg = _____ g
7. 650 kg = _____ g
8. 98 kg = _____ g
9. 63 kg = _____ g
10. 436 kg = _____ g

## Convert grams to kilograms

11. 678,000 g = _____ kg
12. 579,000 g = _____ kg
13. 56,000 g = _____ kg
14. 10,000 g = _____ kg
15. 75,000 g = _____ kg
16. 23,000 g = _____ kg
17. 123,000 g = _____ kg
18. 11,000 g = _____ kg
19. 300,000 g = _____ kg
20. 78,000 g = _____ kg

# CHAPTER 11 - ICAS 2017

# CHAPTER 11 - ICAS 2017

1. This table shows the number of students who ran some laps of a track. There were 14 students altogether.

| Number of laps | Number of students |
|---|---|
| 1 |  |
| 2 |  |
| 3 |  |
| 4 |  |

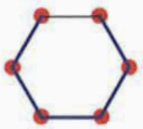
How many students ran **MORE** than 2 laps of the track?

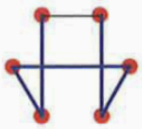
(A) 3
(B) 4
(C) 6
(D) 8

2. Mia had this dot-to-dot picture.

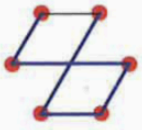

She joined the dots in order from 1 to 6.

Which of these shows what Mia drew?


(A)


(B)


(C)


(D)

3. Cai has a vegetable garden.

He grew three rows of tomato plants with four plants in each row.

How many tomato plants did he grow?

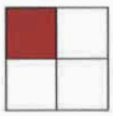
(A) 4
(B) 7
(C) 12
(D) 14

4. Jane filled this large kettle with water.

Which is closest to the number of teacups she can fill with this water?

(A) 3 (B) 15
(C) 60 (D) 100

5. Which of these shapes does **NOT** have one-quarter shaded?


(A)


(B)


(C)

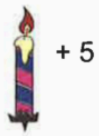

(D)

# CHAPTER 11 - ICAS 2017

6. Today is Fadi's birthday.

The symbol  stands for the number of candles on Fadi's birthday cake.

How many candles should be on Fadi's birthday cake in 5 years' time?




(A)


(B)

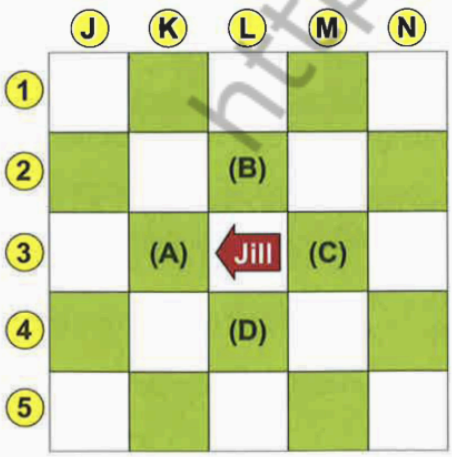

(C)


(D)

7. Jill is standing in L3 facing 3.

She moved one square to her right.

Which square did Jill move to?



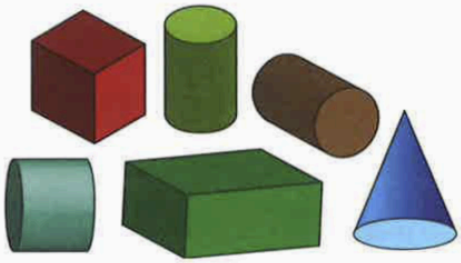

8. Mary read the time on the clock.


Her class starts in 10 minutes.

What time does Mary's class start?

(A) 6:08
(B) 10:40
(C) 11:16
(D) 11:40

9. Pat has these solids. The flat faces with no corners are circular.



How many circular faces are there?

(A) 4
(B) 6
(C) 7
(D) 10

# CHAPTER 11 - ICAS 2017

10. Mr Merlino measured the area of his garden.

Which unit should Mr Merlino use?

(A) millilitres
(B) kilograms
(C) centimetres
(D) square metres

11. Rob's plant has two flowers.

Emma's plant has four more flowers than Rob's plant.

Which of these is Emma's plant?

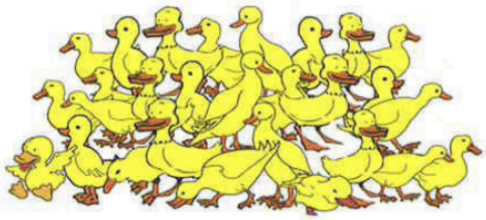
(A)

(B)

(C)

(D)

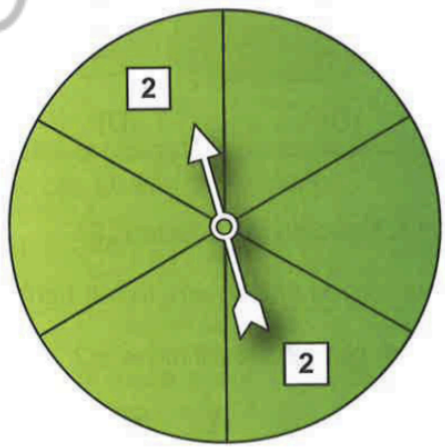
12. Tala had 28 ducklings in a pen. She took them out for a swim in groups of five until there were less than five left in the pen.



How many ducklings were left in the pen?

(A) 3
(B) 4
(C) 5
(D) 23

13. Sally is making a spinner by placing 2 or 3 in each of the six parts.




She wants the chances of the spinner landing on a 2 or on a 3 to be the same.

How many more cards with 2 does Sally need to add to her spinner?

(A) 1
(B) 2
(C) 3
(D) 4

# CHAPTER 11 - ICAS 2017

14. Arun rolled out some pastry.

He then cut some triangles and squares out of the pastry. No other shapes were cut out.

Which of these shows Arun's piece of pastry?

(A)

(B)

(C)

(D)

15. Petra used the buttons on her calculator to make a code.


Each number in her code is found by jumping over the 5. For example, 2 becomes 8 in her code.

Petra wrote down 943.

What was her code for this number?

(A) 1 6 7
(B) 1 3 7
(C) 7 9 1
(D) 7 6 1

16. Mal, Sam and Bob are taking turns on a balance board. Mal is heavier than Sam but lighter than Bob.

Which picture is correct?

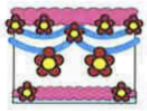

(A)


(B)


(C)

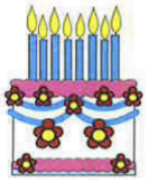

(D)

17. Which picture will **NOT** look the same after a reflection (flip)?



(A)

(B)



(C)

(D)

# CHAPTER 11 - ICAS 2017

18. The diagram shows Tim flying a kite.

Which kite is flying at about the same angle as Tim's?

(A)

(B)

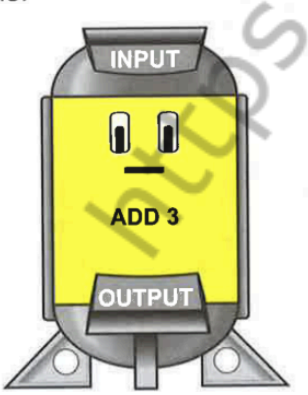
(C)

(D)

19. Ms Green made a number machine.

This machine adds 3 to any number put into it.

Carl put only odd numbers through the machine.




What kind of numbers would come out of the machine?

(A) odd numbers only
(B) even numbers only
(C) the number 6 only
(D) some even and some odd numbers

20. 32 – 8 is _____ 16 + 9.

Which of these makes the statement true?

(A) smaller than
(B) equal to
(C) bigger than
(D) double

21. Mark told only James his secret.
James told his friends, Pete and Andy.
Pete and Andy each told three different people.

How many people, apart from Mark, know Mark's secret?

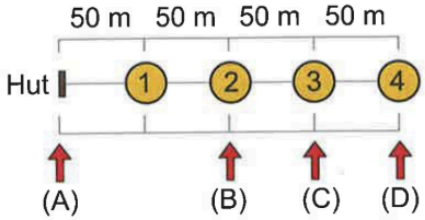
(A) 10
(B) 9
(C) 8
(D) 6

22. A ski lift with cable cars, numbered 1 to 4, has broken down.

Mighty Mitch comes to the rescue.

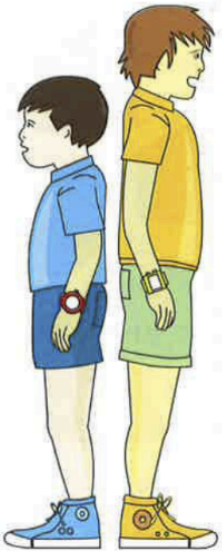
He flies from the hut and brings the closest cable car back to the hut each time.

Where is Mighty Mitch when he has flown a total of 400 metres?



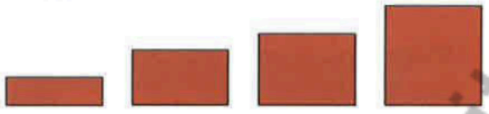
# CHAPTER 11 - ICAS 2017

23. Jack is shorter than Max.



Jack Max

Which box could Jack stand on to make the tops of their heads level?



(A) (B) (C) (D)

24. Kim stood outside a shop and read this sign painted on the window.

Molly's
**RESTAURANT**

Kim went inside and looked at the same sign from the other side of the window.

What did she see?

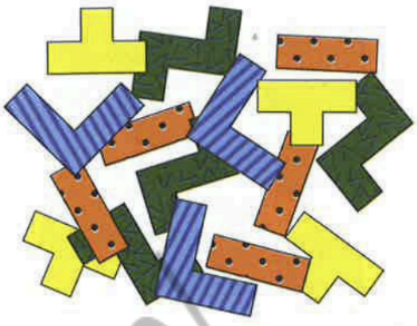
(A) 

(B) 

(C) 

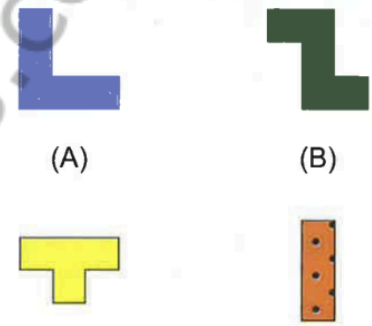
(D) 

25. Andy scatters some puzzle pieces on the floor.



He picks one puzzle piece without looking.

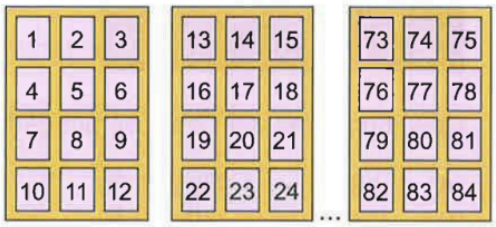
Which piece is Andy **least** likely to pick?



(A) (B)

(C) (D)

26. Lien had some cards numbered from 1 to 96. He put the cards in order then glued 12 cards to a page as shown.

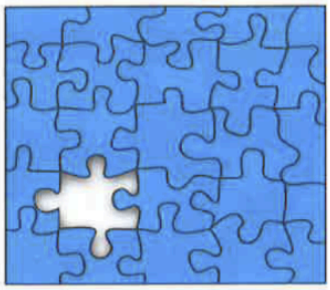



What page number must ? be?

(A) 4 (B) 6
(C) 7 (D) 8

# CHAPTER 11 - ICAS 2017

27. Jim has lost a piece of his 'Blue Sky' jigsaw puzzle.

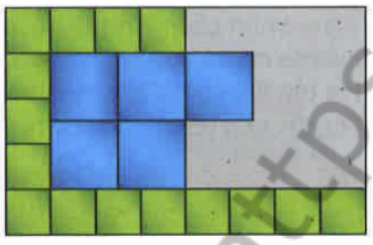


Which is the missing piece?

(A) (B) (C) (D)

28. Gina started tiling a floor using large tiles and small tiles.

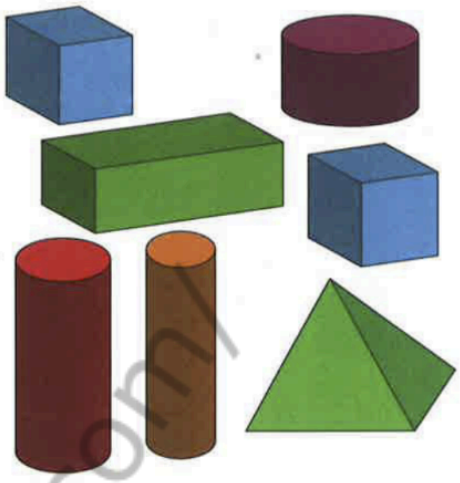
She used the small tiles around the outside and the large tiles in the middle, as shown.



How many tiles will Gina use altogether?

(A) 28 (B) 30
(C) 34 (D) 40

29. Elke found these seven solids in a box.



She took them out of the box one at a time.

The first solid Elke took out was a pyramid.

Elke then took out a cube.

Which type of solid was impossible for Elke to take out next?

(A) cube
(B) prism
(C) cylinder
(D) pyramid

30. Betty had these five cards.


Betty chose two cards. One was the largest odd number and the other was the smallest odd number.

What is the difference between these two numbers?

(A) 50
(B) 54
(C) 63
(D) 70

# CHAPTER 11 - ICAS 2017

31. Jack had drum lessons on Monday and Friday afternoons in Term 1.

**Term 1**

holidays

**January**

| SUN | MON | TUE | WED | THUR | FRI | SAT |
|---|---|---|---|---|---|---|
| | | | | | 1 | 2 |
| 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| 17 | 18 | 19 | 20 | 21 | 22 | 23 |
| 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| 31 | | | term 1 begins | | | |

**February**

| SUN | MON | TUE | WED | THUR | FRI | SAT |
|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 |
| 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 |
| 28 | 29 | | | | | |

**March**

| SUN | MON | TUE | WED | THUR | FRI | SAT |
|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 |
| 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| 20 | 21 | 22 | 23 | 24 | 25 | 26 |
| 27 | 28 | 29 | 30 | 31 | | |

**April**

| SUN | MON | TUE | WED | THUR | FRI | SAT |
|---|---|---|---|---|---|---|
| | | | | | 1 | 2 |
| 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| 17 | 18 | 19 | 20 | 21 | 22 | 23 |
| 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| | | term 2 begins | | | | |

There were no lessons during holidays.

How many drum lessons did Jack have during Term 1?

(A) 19
(B) 20
(C) 23
(D) 28

32. Ying and Cai were placing coloured counters on this grid.

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 |
| 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 |
| 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 |
| 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 |
| 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 |
| 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 |
| 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 |

Ying placed a green counter on every 7th square. Cai placed a blue counter on every 4th square.

They continued in this way until they were finished.

How many squares have only a green counter on them?

(A) 4
(B) 7
(C) 11
(D) 14

33. Jane was born on 10 November 2005 while Yan was born on 10 February 2004.

What is their age difference?

(A) 21 months
(B) 10 months
(C) 9 months
(D) 3 months

# CHAPTER 11 - ICAS 2017

34. Jai smudged some of his working.

$16 - \square = 7$

$4 \times \square = 20$

He multiplied the two smudged numbers together.

What should Jai's answer be?

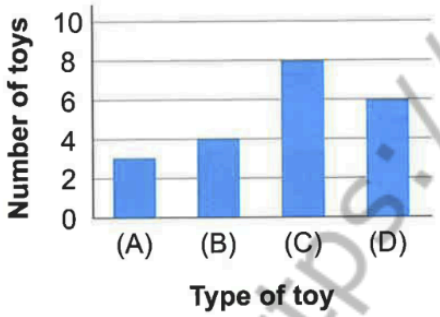
(A) 14 (B) 40
(C) 45 (D) 55

35. Each student in Anna's class brought a toy to school.

There were twice as many action heroes as there were stuffed toys brought in.

Four students brought in puzzles.

Which column shows the number of action heroes brought to school?




36. Ravi takes 4 paces for every 5 of Isha's paces.

Ali takes 3 paces for every 4 of Isha's paces.

Ravi measures the length of the path with 16 paces.

How many paces will Ali take to measure the same path?

(A) 12 (B) 15
(C) 17 (D) 20

37. Kevin is solving a puzzle by placing the numbers from 1 to 9 on a grid.

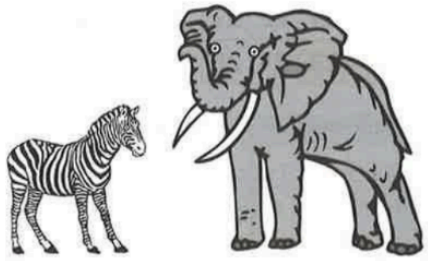
| | | |
|---|---|---|
| | | |
| | 3 | ? |
| 1 | | 6 |

The numbers in each row and in each column must add to 15.

What number must ? be?

(A) 2
(B) 4
(C) 5
(D) 7

38. The zookeeper measured the heights of an elephant and a zebra.



The sum of their heights was 550 centimetres.

Their height difference was 250 centimetres.

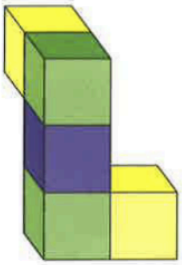
What was the height of the zebra?

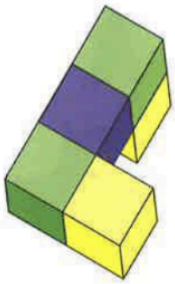
(A) 150 centimetres
(B) 200 centimetres
(C) 250 centimetres
(D) 300 centimetres

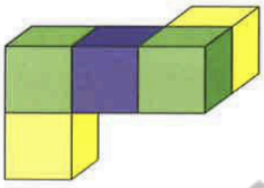
# CHAPTER 11 - ICAS 2017

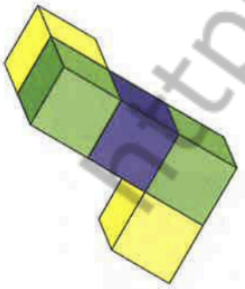
39. Jamie made a solid using cubes. Three of these options are pictures of Jamie's solid and one is not.

Which one is **NOT**?

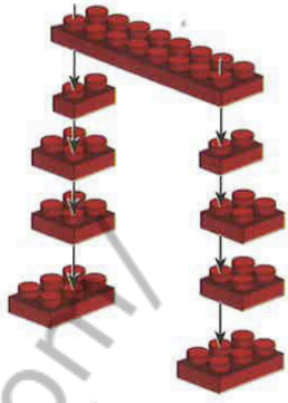
(A) 

(B) 

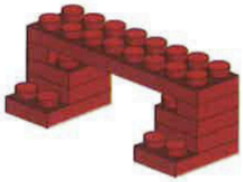
(C) 

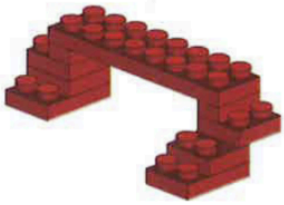
(D) 

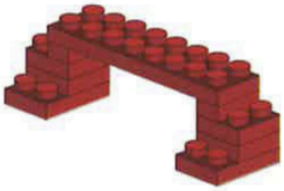
40. These are the instructions for building an object out of blocks.

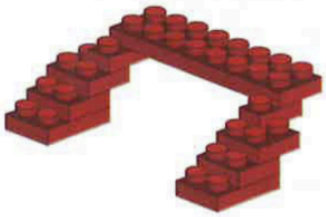


What will the object look like when built correctly?

(A) 

(B) 

(C) 

(D) 

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# TIMES TABLES

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