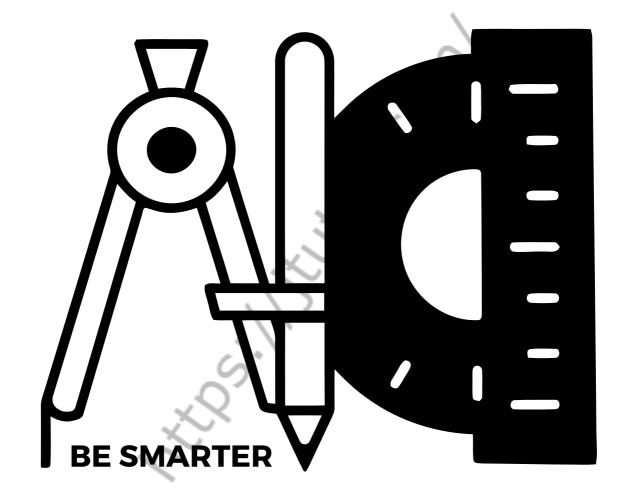
J-TUTES



YEAR 5 WORKBOOK

TERM 2 SYLLABUS

CHAPTER 1 - NAPLAN

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

CHAPTER 2 - NAPLAN

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

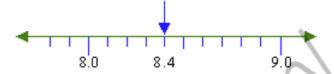
CHAPTER 3 - NAPLAN

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

CHAPTER 4 - DECIMALS ON A NUMBER LINE & ROUNDING DECIMALS ON A NUMBER LINE

To represent a decimal on a number line, divide each segment of the number line into ten equal parts.

E.g. To represent 8.4 on a number line, divide the segment between 8 and 9 into ten equal parts.



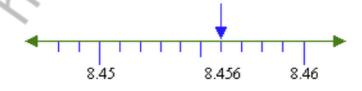
The arrow is four parts to the right of 8 where it points at 8.4.

Likewise, to represent 8.45 on a number line, divide the segment between 8.4 and 8.5 into ten equal parts.



The arrow is five parts to the right of 8.4 where it points at 8.45.

Similarly, we can represent 8.456 on a number line by dividing the segment between 8.45 and 8.46 into ten equal parts.

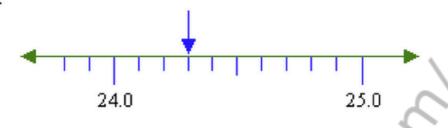


The arrow is six parts to the right of 8.45 where it points at 8.456.

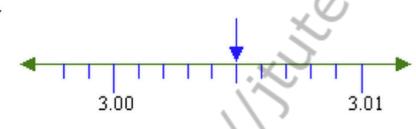
EXAMPLE

Write the decimal number that the arrow points at in the following diagrams:

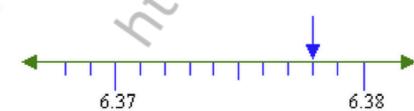
a.



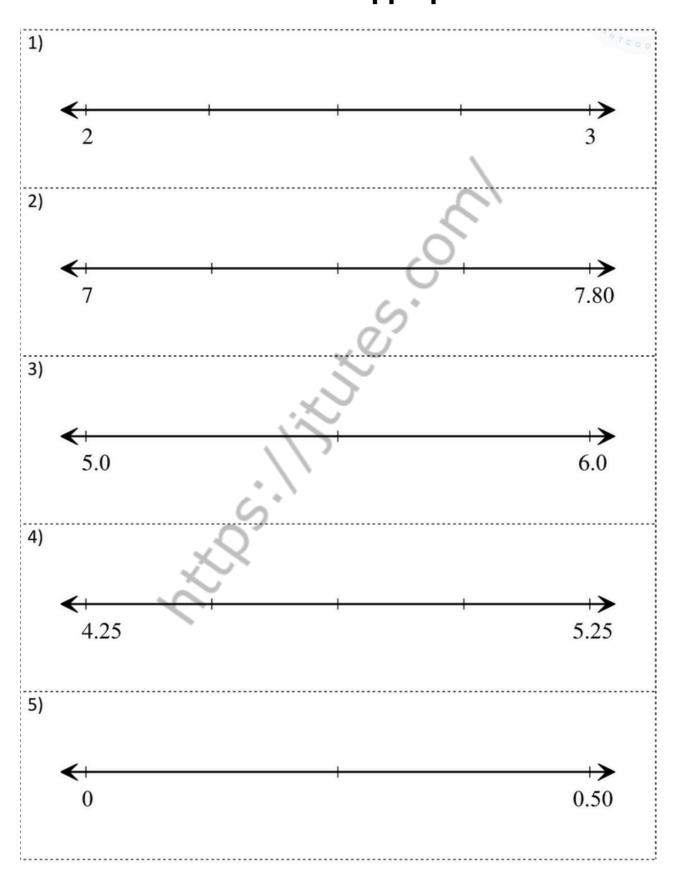
b.



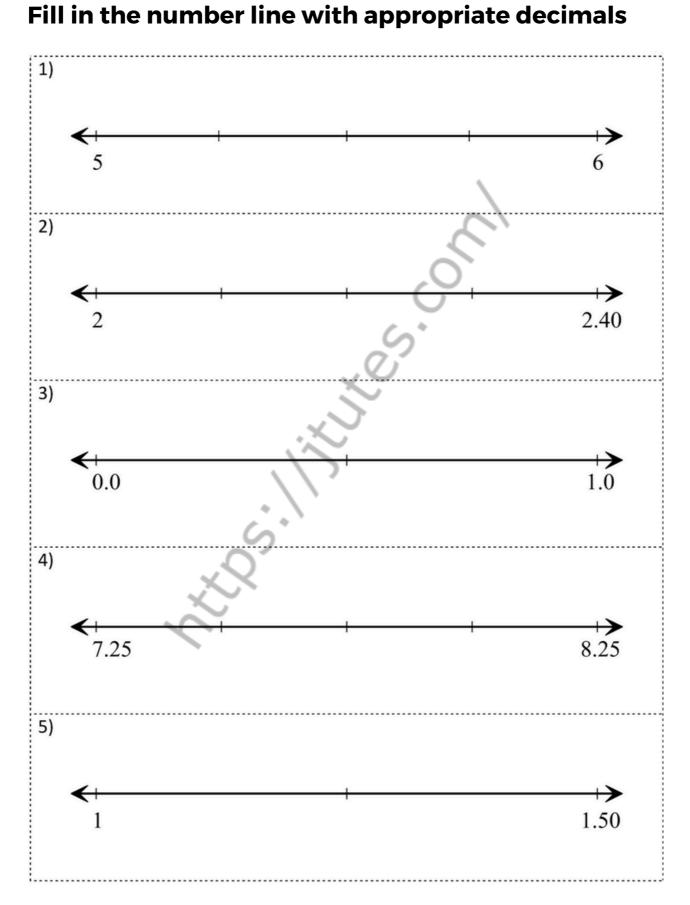
c.



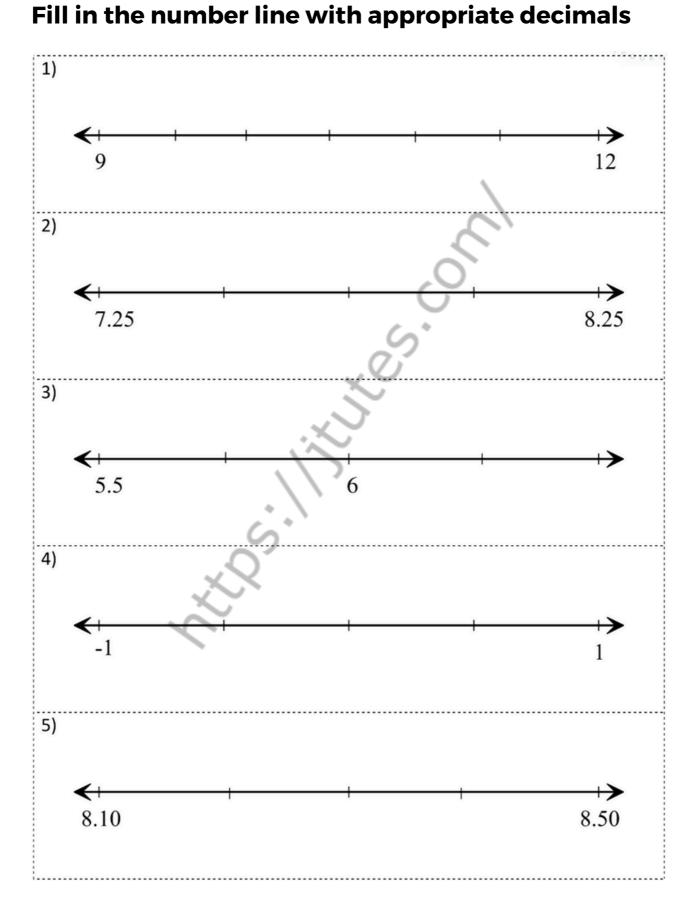
CHAPTER 4 - DECIMALS ON A NUMBER LINE & ROUNDING BASIC DECIMAL REPRESENTATION Fill in the number line with appropriate decimals



CHAPTER 4 - DECIMALS ON A NUMBER LINE & ROUNDING BASIC DECIMAL REPRESENTATION Fill in the number line with appropriate decimals

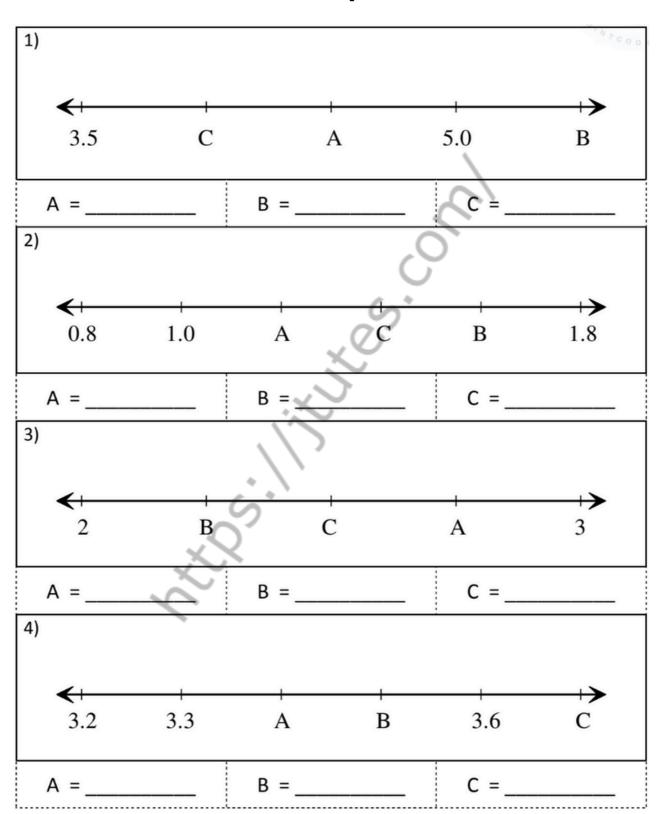


CHAPTER 4 - DECIMALS ON A NUMBER LINE & ROUNDING BASIC DECIMAL REPRESENTATION Fill in the number line with apprentiate decimals



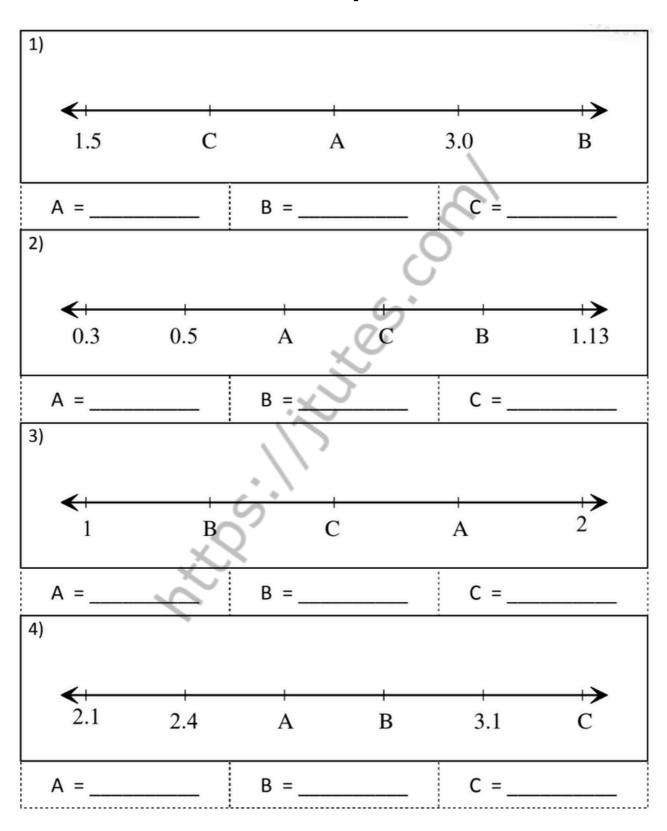
IDENTIFY THE DECIMALS

What decimal do the letter points to?

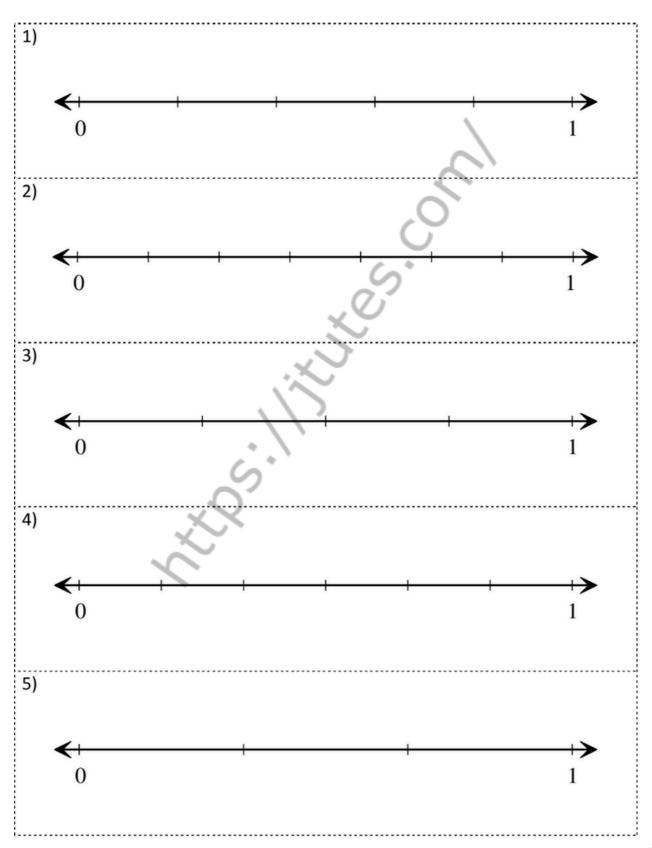


IDENTIFY THE DECIMALS

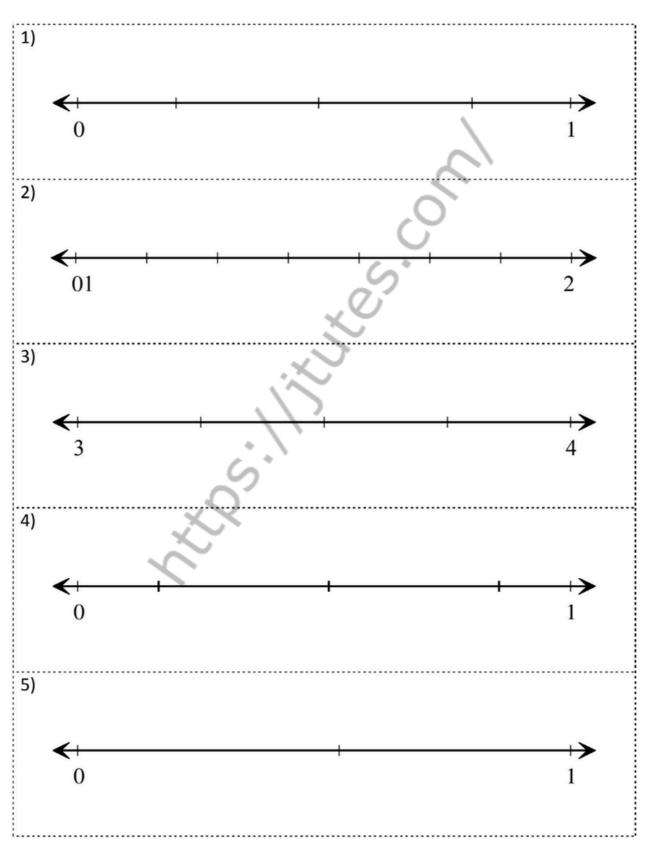
What decimal do the letter points to?



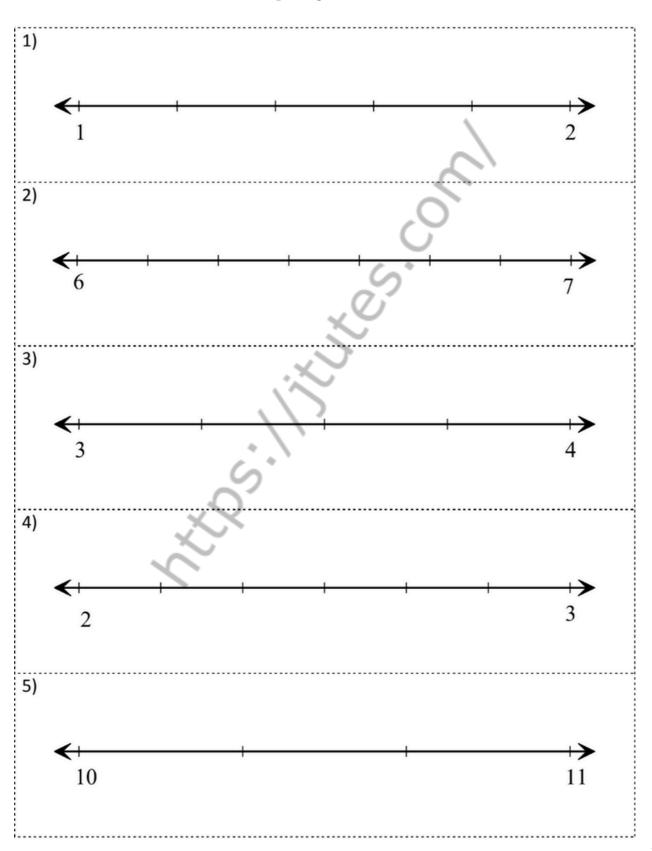
IDENTIFY THE DECIMALS USING NUMBER LINE Complete the number line with appropriate fractions: (Do not simplify fractions)

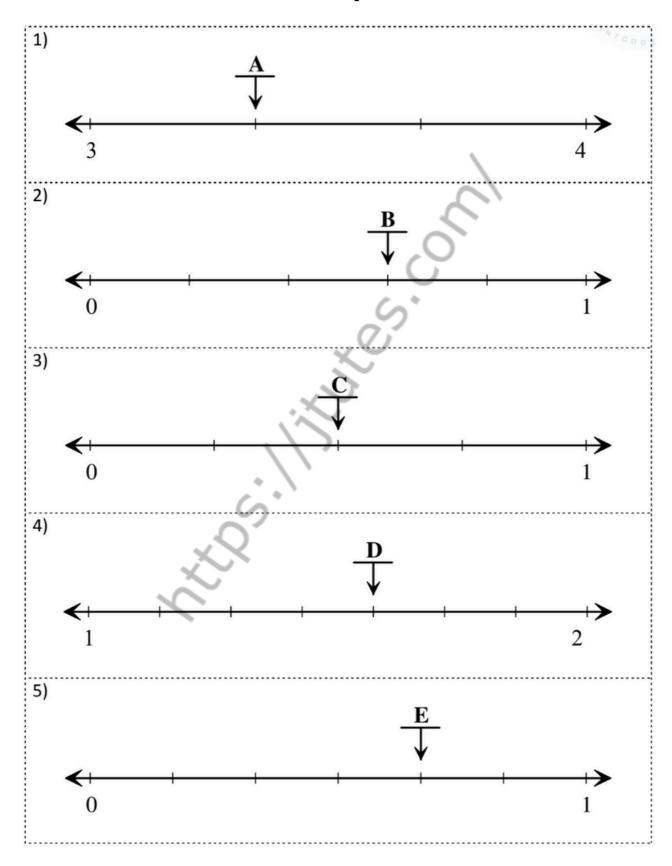


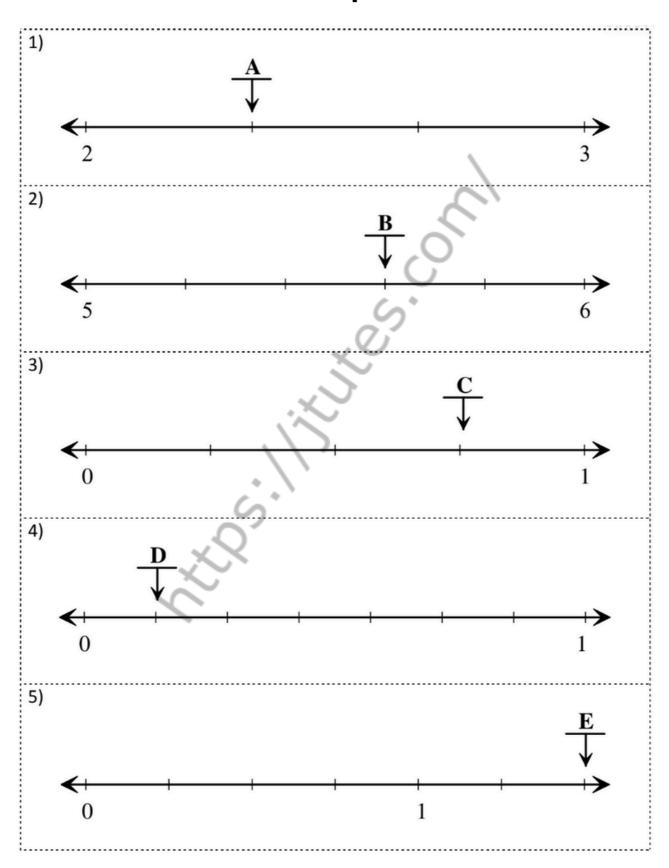
IDENTIFY THE DECIMALS USING NUMBER LINE Complete the number line with appropriate fractions: (Do not simplify fractions)

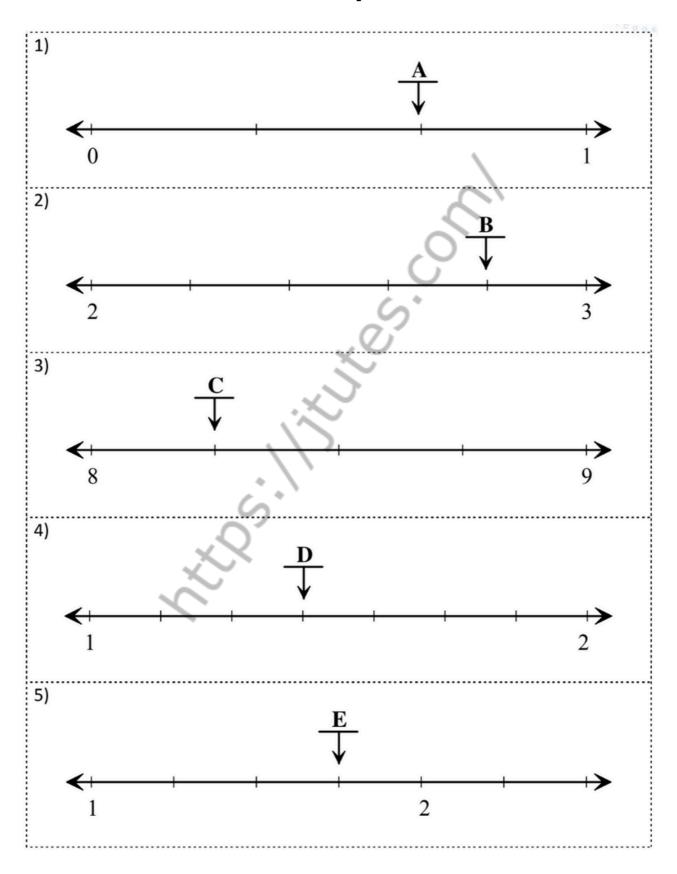


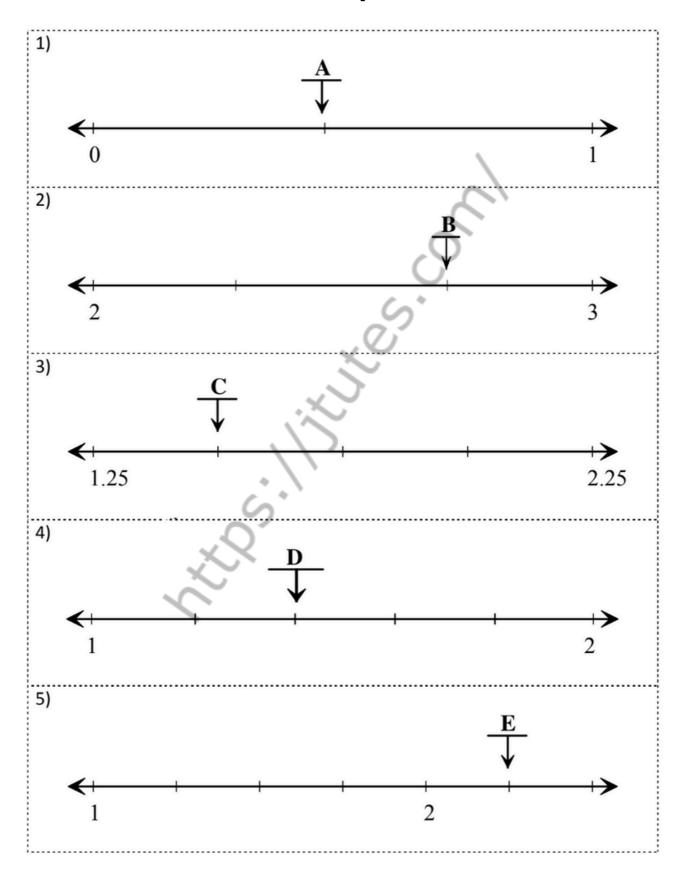
IDENTIFY THE DECIMALS USING NUMBER LINE Complete the number line with appropriate fractions: (Do not simplify fractions)











CHAPTER 4 - DECIMALS ON A NUMBER LINE & ROUNDING ROUNDING TO WHOLE NUMBERS

134.9 rounded to tens is 130

as the next digit (4) is less than 5

12,690 rounded to thousands is 13,000

as the next digit (6) is 5 or more

15.239 rounded to ones is 15

as the next digit (2) is less than 5

CHAPTER 4 - DECIMALS ON A NUMBER LINE & ROUNDING ROUNDING TO WHOLE NUMBERS

First work out which number will be left when we finish.

- Rounding to **tenths** means to leave **one number** after the decimal point.
- Rounding to **hundredths** means to leave **two numbers** after the decimal point.

3.1416 rounded to hundredths is 3.14

as the next digit (1) is less than 5

3.1416 rounded to thousandths is 3.142

as the next digit (6) is more than 5

1.2735 rounded to tenths is 1.3

as the next digit (7) is 5 or more

To round to "so many decimal places" count that many digits from the decimal point:

1.2735 rounded to 3 decimal places is 1.274

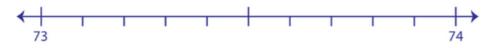
as the next digit (5) is 5 or more

ROUNDING TO WHOLE NUMBERS





i) Label 73.6 on the number line.



- ii) Which is closer to 73.6?
- a) 73
- b) 74
- iii) 73.6 rounded to the nearest whole number is ______

2) 9.4

i) Label 9.4 on the number line.



- ii) Which is closer to 9.4?
- a) 9
- b) 10
- iii) 9.4 rounded to the nearest whole number is ______
- B) Round each decimal to the nearest whole number.
 - 1) 54.19

2) 31.7

3) 9.6

4) 7.52

5) 21.38 _____

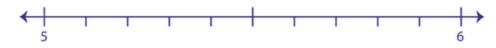
- 6) 45.9
- 7) 6.5
- 8) 1.43
- 9) 83.28
- 10) 77.1

ROUNDING TO WHOLE NUMBERS





i) Label 5.2 on the number line.



- ii) Which is closer to 5.2?
- a) 5
- b) 6
- iii) 5.2 rounded to the nearest whole number is ______

2) 82.7

i) Label 82.7 on the number line.



- ii) Which is closer to 82.7?
- a) 82
- b) 83
- iii) 82.7 rounded to the nearest whole number is ______
- B) Round each decimal to the nearest whole number.
 - 1) 6.14

2) 9.32

3) 35.9

- 4) 17.8
- 5) 5.01
- 6) 7.5
- 7) 24.2
- 8) 40.64
- 9) 3.97
- 10) 8.9

ROUNDING TO WHOLE NUMBERS





i) Label 31.1 on the number line.



- ii) Which is closer to 31.1?
- a) 31
- b) 32
- iii) 31.1 rounded to the nearest whole number is ______

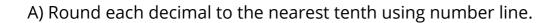
2) 6.9

i) Label 6.9 on the number line.



- ii) Which is closer to 6.9?
- a) 7
- b) 6
- iii) 6.9 rounded to the nearest whole number is ______
- B) Round each decimal to the nearest whole number.
 - 1) 37.4
- 2) 7.01
- 3) 5.69
- 4) 16.3
- 5) 89.7
- 6) 2.8
- 7) 4.13
- 8) 61.56
- 9) 78.61
- 10) 9.1

ROUNDING TO NEAREST TENTH





i) Label 59.14 on the number line.



- ii) Which is closer to 59.14?
- a) 59.2
- b) 59.1
- iii) 59.14 rounded to the nearest tenth is _

2) 3.86

i) Label 3.86 on the number line.



- ii) Which is closer to 3.86?
- a) 3.9
- b) 3.8
- iii) 3.86 rounded to the nearest tenth is ___
- B) Round each decimal to the nearest tenth.
 - 1) 51.686

2) 9.13

3.421 3)

- 4)
- 67.39

5) 75.537 6) 1.254

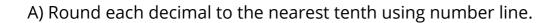
7) 2.45

- 8)
- 46.812

84.78 9)

10) 6.40

ROUNDING TO NEAREST TENTH





i) Label 6.31 on the number line.



- ii) Which is closer to 6.31?
- a) 6.3
- b) 6.4
- iii) 6.31 rounded to the nearest tenth is ______

2) 92.74

i) Label 92.74 on the number line.



- ii) Which is closer to 92.74?
- a) 92.8
- b) 92.7
- iii) 92.74 rounded to the nearest tenth is _____
- B) Round each decimal to the nearest tenth.
 - 1) 4.059

2) 68.245

3) 17.82

4) 9.472

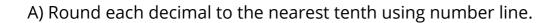
5) 8.18

6) 32.37

7) 51.594 ____

- 8) 7.60
- 9) 2.71
- 10) 49.923

ROUNDING TO NEAREST TENTH





i) Label 17.68 on the number line.



- ii) Which is closer to 17.68?
- a) 17.6
- b) 17.7
- iii) 17.68 rounded to the nearest tenth is _____

2) 46.42

i) Label 46.42 on the number line.



- ii) Which is closer to 46.42?
- a) 46.5
- b) 46.4
- iii) 46.42 rounded to the nearest tenth is ______
- B) Round each decimal to the nearest tenth.
 - 1) 95.704

2) 80.52

3) 4.917

4) 2.173

5) 68.35

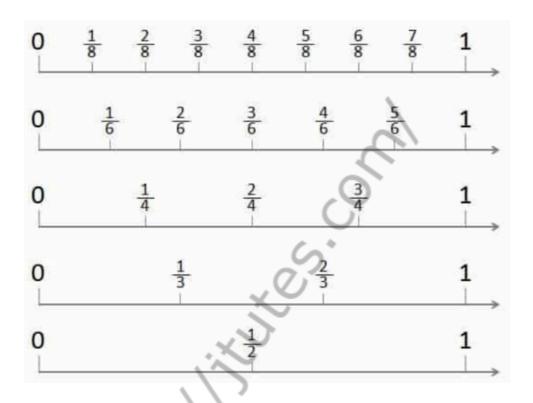
6) 5.83

7) 72.64 _____

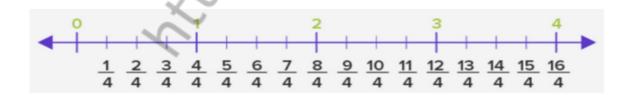
8) 19.275

- 9) 3.46
- 10) 4.171

FRACTIONS ON A NUMBER LINE

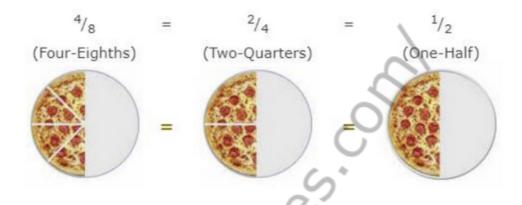


DIVIDING INTO 4 PARTS

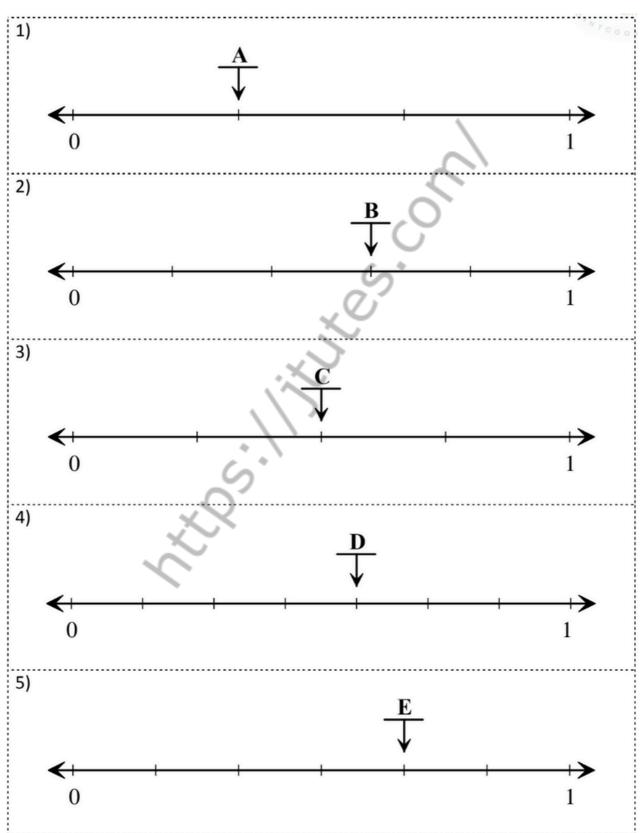


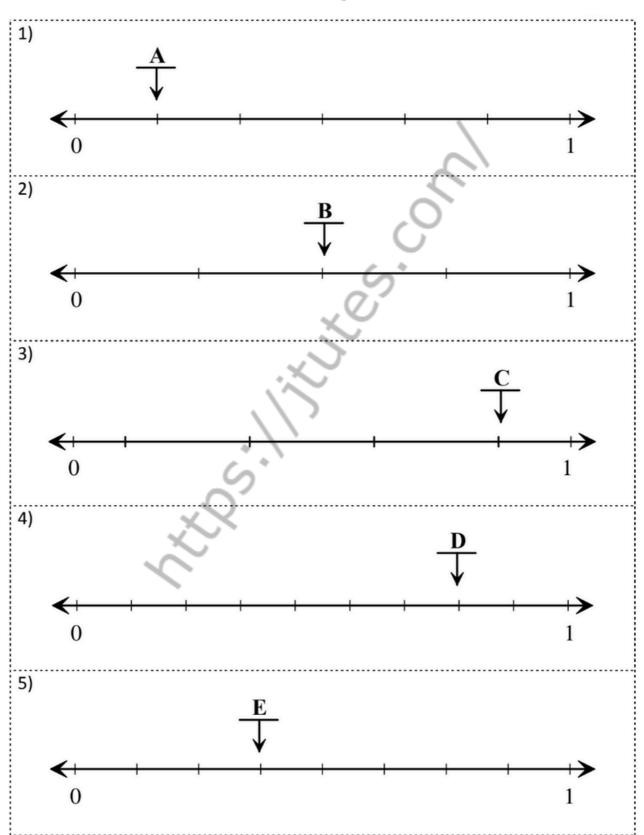
EQUIVALENT FRACTIONS

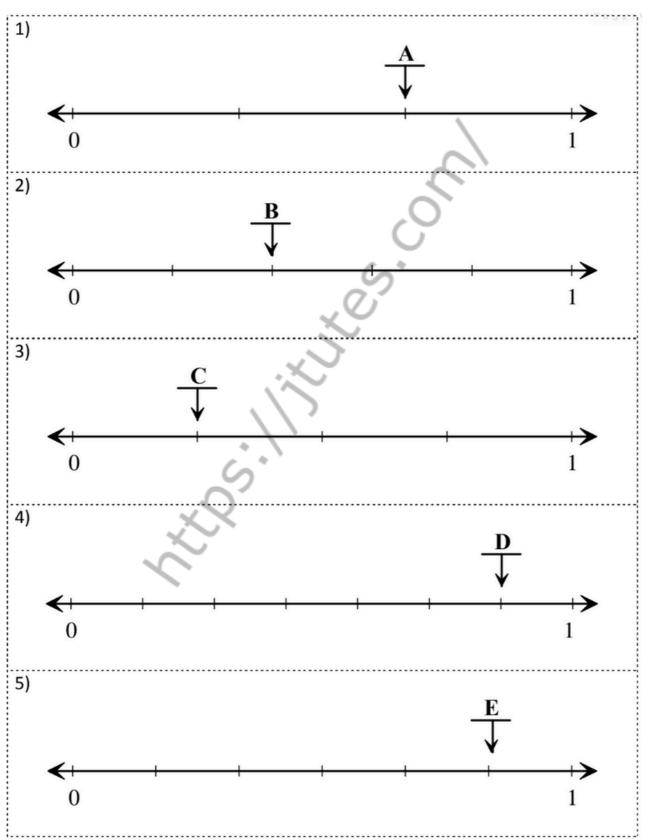
Some fractions may look different, but are really the same, for example:

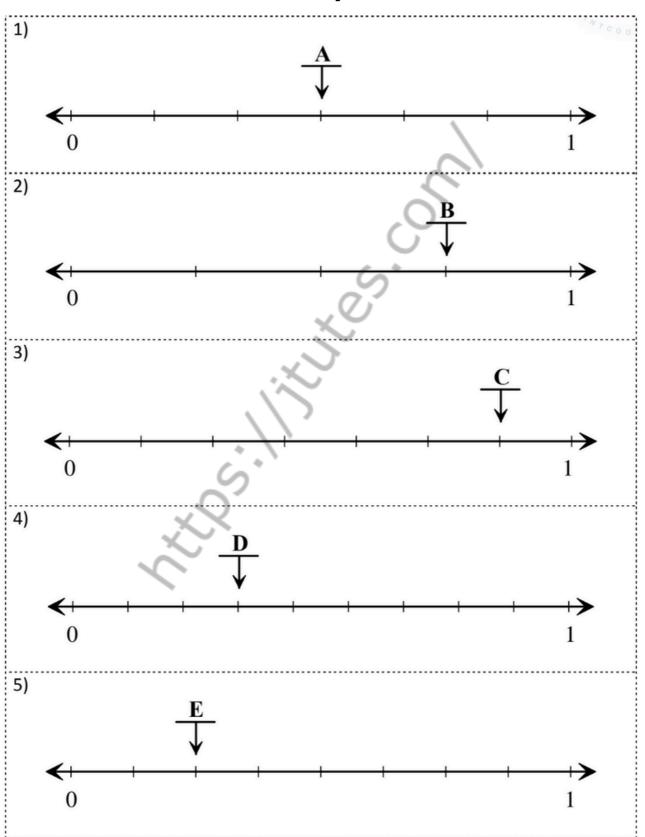


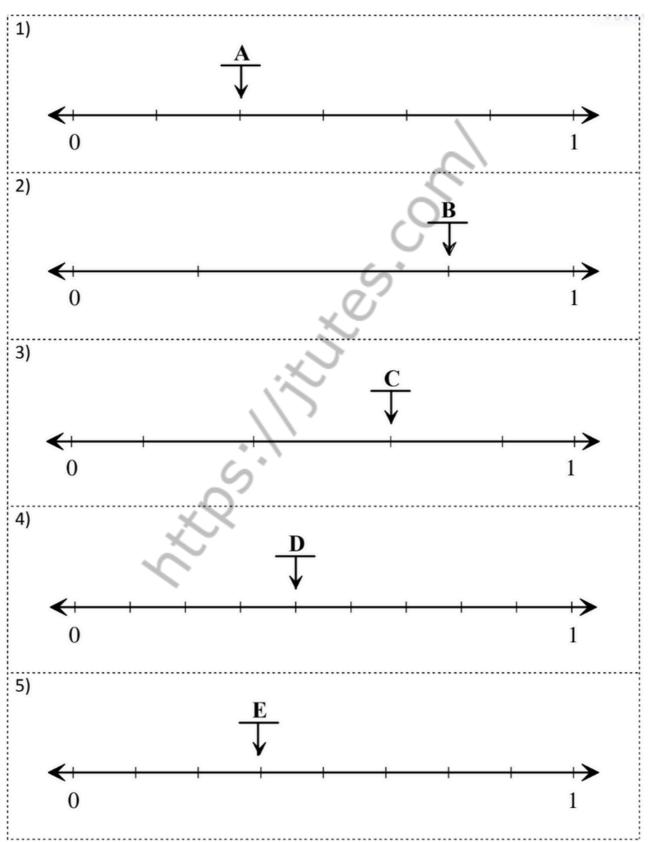
It is usually best to show an answer using the simplest fraction (1/2 in this case). That is called Simplifying, or Reducing the Fraction

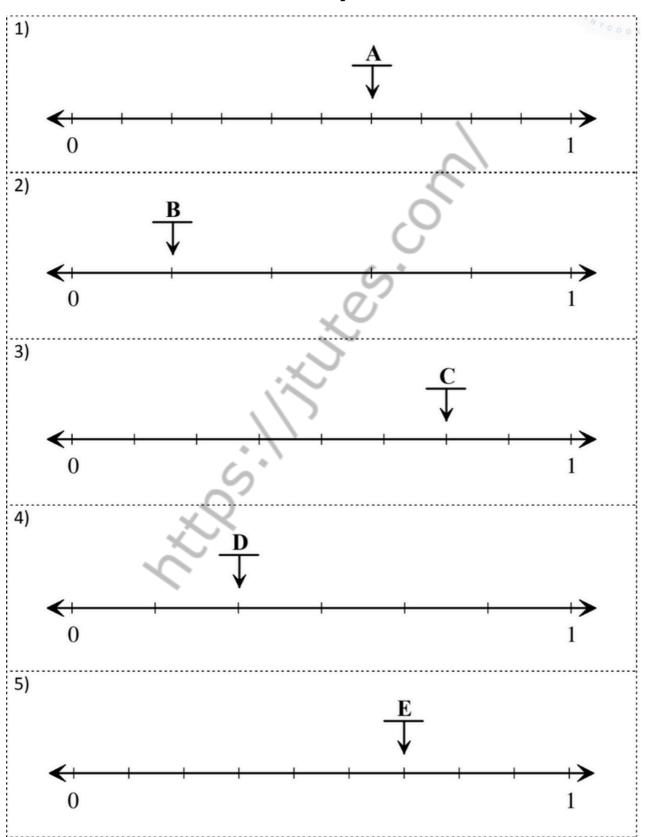






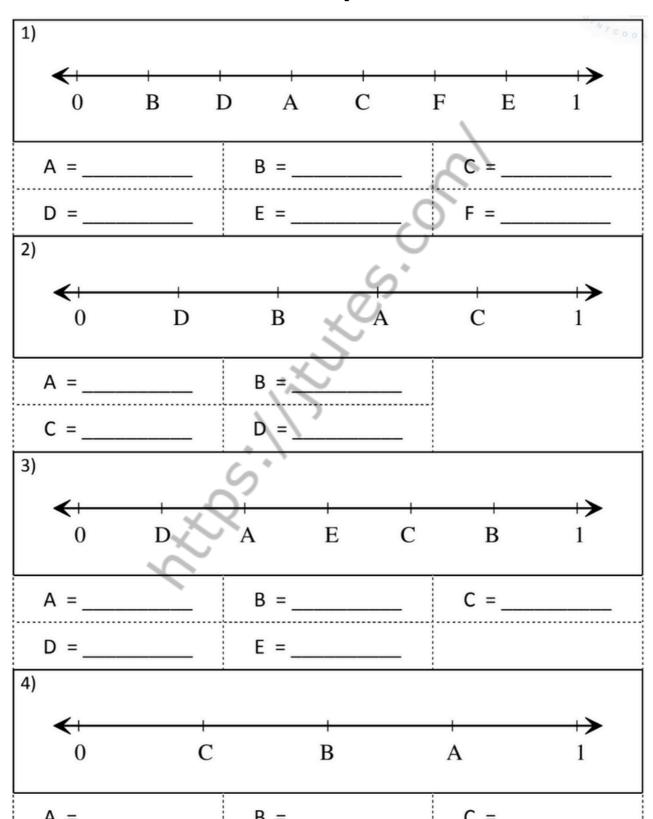






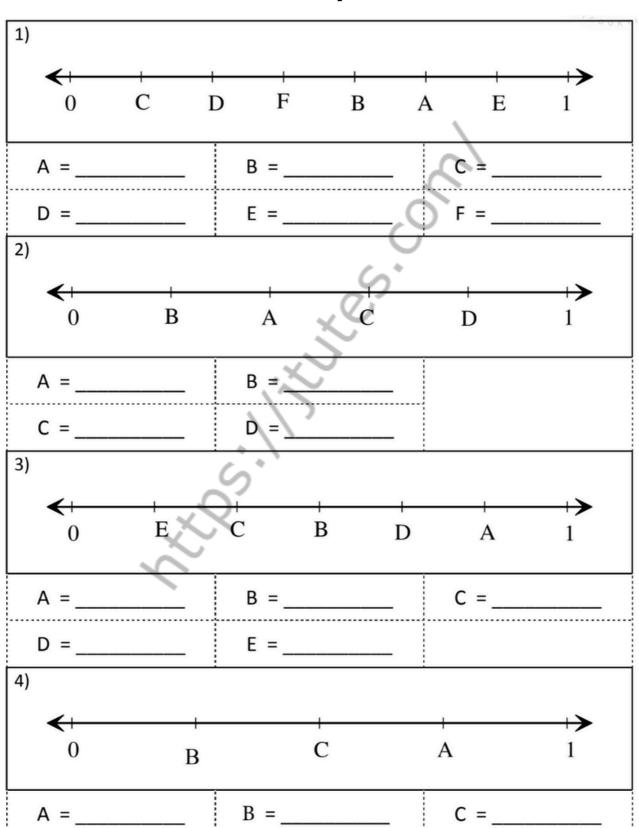
IDENTIFY THE FRACTION

What fraction do the letter points to?



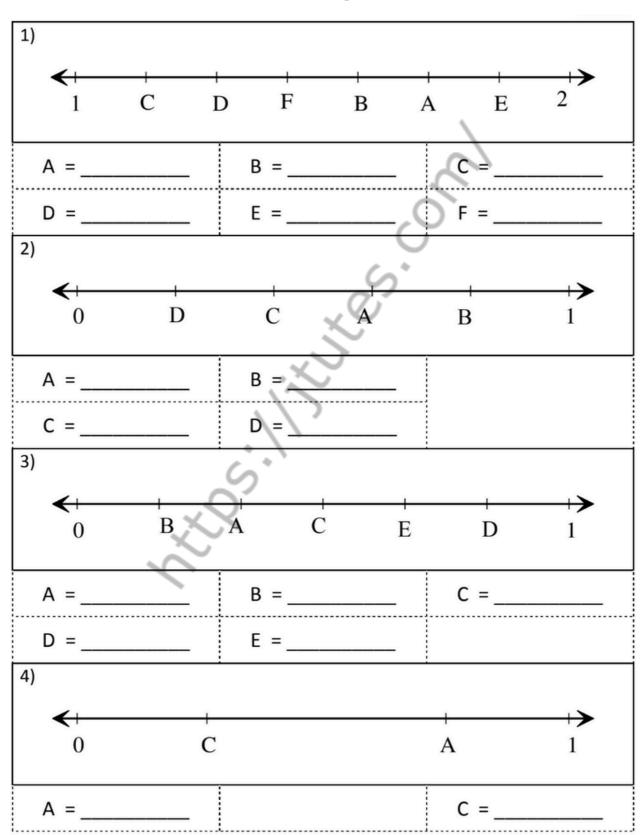
IDENTIFY THE FRACTION

What fraction do the letter points to?



IDENTIFY THE FRACTION

What fraction do the letter points to?



FRACTIONS WORKSHEET

		Access of the second
1 a. $\frac{36}{30} = {5}$	1 b. $\frac{1}{12} = \frac{3}{12}$	1 c. $\frac{14}{2}$ = $\frac{1}{2}$
2 a. $\frac{1}{1} = \frac{30}{1}$	2 b. $\frac{30}{30} = \frac{1}{1}$	$2 c. \frac{30}{2} = \frac{5}{2}$
3 a. $\frac{5}{5} = \frac{5}{25}$	3 b. $\frac{39}{6} = \frac{13}{6}$	$3 \text{ c.} \frac{1}{18} = \frac{1}{1}$
4 a. $\frac{2}{35} = \frac{10}{35}$	4 b =	4 c. $\frac{10}{15} = \frac{2}{}$
5 a. 1 = 4 36	5 b. $\frac{1}{2} = {4}$	5 c. $\frac{5}{18} = \frac{5}{6}$
6 a. $\frac{14}{35} = \frac{2}{35}$	6 b. ${2} = \frac{30}{4}$	6 c. $\frac{1}{9} = \frac{3}{9}$
7 a. $\frac{4}{1} = \frac{40}{1}$	7 b. $\frac{2}{1} = \frac{7}{7}$	7 c. $\frac{13}{11} = {33}$
8 a. $\frac{28}{4} = \frac{1}{1}$	8 b = 34	8 c. 1 = 12 36
9 a. $\frac{1}{2} = \frac{9}{}$	9 b. $\frac{4}{21} = \frac{12}{21}$	9 c. ${10} = \frac{7}{2}$

FRACTIONS WORKSHEET

$\frac{1 \text{ a.}}{1} = \frac{28}{4}$	$\frac{1}{1}$ $\frac{6}{1}$ = $\frac{6}{6}$	1 c. $\frac{28}{12} = \frac{7}{12}$
2 a. $\frac{32}{2} = -$	2 b. 16 = 1	2 c. $\frac{34}{1} = \frac{2}{1}$
3 a. $\frac{6}{24} = {4}$	3 b. $\frac{7}{6} = \frac{28}{6}$	3 c. $\frac{2}{1} = \frac{36}{1}$
4 a. $\frac{9}{1} = \frac{27}{1}$	4 b. $\frac{2}{24}$	4 c. $\frac{15}{2} = \frac{15}{30}$
5 a. =	$\frac{9}{10}$ 5 b. $\frac{12}{8}$ = ${2}$	5 c. $\frac{16}{18} = {9}$
6 a =	$\frac{2}{1}$ 6 b. $\frac{1}{3}$ = $\frac{3}{3}$	6 c. $\frac{1}{4} = \frac{4}{4}$
7 a. $\frac{22}{2}$ =	7 b. 33 = 11	7 c =2136
8 a. $\frac{32}{16} = {1}$	_ 8 b = 3	8 c. $\frac{24}{28} = \frac{6}{}$
9 a. $\frac{3}{4} = \frac{12}{12}$	9 b. 2 = 39	9 c. 1 = 17 17

FRACTIONS WORKSHEET

1 a. 22 = 11	1 b. 13 = 26	1 c. $\frac{12}{27} = {9}$
$\frac{2 \text{ a.}}{21} = \frac{2}{2}$	2 b. $\frac{1}{2} = \frac{7}{}$	$\frac{2c}{16} = \frac{3}{4}$
3 a = 38 6	$\frac{3 \text{ b.}}{3} = \frac{14}{21}$	$\frac{3 \text{ c.}}{9} = \frac{15}{3}$
4 a. $\frac{13}{4} = \frac{12}{12}$	4 b. $\frac{7}{4} = \frac{21}{4}$	4 c. $\frac{11}{19} = {38}$
5 a. $\frac{8}{9} = \frac{16}{9}$	5 b. 6 = 24 4	5 c. $\frac{5}{32} = \frac{20}{32}$
6 a. 11 = 33	6 b. 23 = 1	6 c. $\frac{2}{5} = {25}$
7 a. $\frac{3}{1} = \frac{30}{1}$	7 b. ${2} = \frac{28}{8}$	7 c. $\frac{1}{18} = \frac{1}{9}$
8 a. $\frac{3}{8} = {40}$	8 b. $\frac{1}{4} = \frac{1}{1}$	8 c. 3 = 1/5
9 a. $\frac{6}{21} = \frac{18}{21}$	9 b. $\frac{5}{24} = \frac{40}{24}$	9 c. $\frac{5}{1} = \frac{15}{1}$

FRACTIONS WORKSHEET

1 a. $\frac{7}{8} = \frac{2}{3}$	1 b. 15	- = - 9	1 c. $\frac{33}{30}$ =	10
2 a. $\frac{5}{13}$ = -	2 b. 10 25	- = <u>-</u>	2 c. 11 =	33 27
$\frac{3 \text{ a.}}{2} = \frac{1}{38}$	3 b. 4	- = 2 17	3 c. <u>3</u> =	10
4 a =3.	4 b. 13 5	39	4 c =	<u>8</u> 12
5 a. $\frac{2}{1} = \frac{1}{1}$	5 b. 30		5 c. $\frac{1}{1}$ =	_18_
6 a. =	3 6 b. 8 16	- = <u>1</u>	6 c. <u>15</u> =	<u>5</u> 4
7 a. <u>36</u> =	12 7 b. 2	= 6/21	7 c =	<u>21</u> 7
8 a =	1 8 b. 10 34	- =	8 c. 11 =	3
9 a. 13 = -	9 b. <u>1</u>	= 32/32	9 c. 13 =	9

FRACTIONS WORKSHEET

1 a. $\frac{4}{13} = \frac{8}{13}$	1 b. $\frac{8}{3} = {9}$	1 c = 33 30
$\frac{2 \text{ a.}}{1} = \frac{36}{12}$	2 b. $\frac{5}{30} = \frac{1}{30}$	$\frac{2}{4}$ = $\frac{25}{4}$
3 a. $\frac{1}{32} = \frac{8}{32}$	3 b. 1 = 2	3 c. $\frac{2}{5} = \frac{14}{}$
4 a. $\frac{4}{15} = \frac{4}{3}$	4 b. 16 8 13	4 c. $\frac{9}{11}$ = $\frac{3}{11}$
5 a. $\frac{1}{5} = {30}$	5 b. = 33 11	5 c. <u>28</u> = <u>7</u> 10
6 a. $\frac{15}{39} = \frac{5}{}$	6 b. $\frac{1}{9} = {27}$	6 c. $\frac{11}{11} = \frac{1}{1}$
7 a. $\frac{32}{28} = \frac{8}{28}$	7 b. $\frac{7}{20} = \frac{7}{4}$	7 c. $\frac{1}{39} = \frac{1}{3}$
8 a. $\frac{9}{15} = \frac{27}{15}$	8 b. $\frac{2}{3} = \frac{27}{27}$	8 c. $\frac{36}{32} = \frac{9}{}$
9 a. $\frac{21}{7} = \frac{1}{1}$	9 b. $\frac{3}{5} = \frac{15}{5}$	9 c. 10 = 5

FRACTIONS WORKSHEET

1 a. $\frac{8}{7} = {28}$	1 b. 20 = 10	1 c. $\frac{9}{21} = {7}$
$\frac{2 \text{ a.}}{3} = \frac{39}{13}$	2 b. $\frac{1}{4} = \frac{1}{16}$	$\frac{2c.}{8} = \frac{12}{32}$
$\frac{3 \text{ a.}}{35} = \frac{1}{5}$	3 b. $\frac{3}{5} = \frac{32}{20}$	3 c. $\frac{5}{24} = \frac{5}{3}$
4 a. $\frac{4}{25} = \frac{4}{5}$	4 b. $\frac{2}{6}$ = $\frac{12}{6}$	4 c. ${27} = \frac{5}{9}$
5 a. 8 = 16	5 b. 36 = 9/1	5 c. $\frac{4}{26}$ = $\frac{2}{}$
6 a. $\frac{1}{30} = \frac{10}{30}$	6 b. $\frac{2}{12} = \frac{24}{12}$	6 c. $\frac{9}{3} = {1}$
7 a. $\frac{30}{18} = \frac{3}{3}$	7 b. $\frac{3}{20} = \frac{12}{20}$	7 c. $\frac{9}{12}$
8 a. ${8} = \frac{5}{2}$	8 b. 18 = 13	8 c = $\frac{7}{6}$
9 a. $\frac{5}{15} = \frac{5}{3}$	9 b. $\frac{2}{5} = \frac{6}{}$	9 c. $\frac{12}{27} = {9}$

FRACTIONS WORKSHEET

1 a =	39 15	· 4/1 =	4	1 c =	<u>1</u> 3
2 a =	1 2 b	· <u>9</u> =	<u>27</u> 3	2 c. 2 =	<u>14</u> 7
3 a. 12 =	3 b	3 =	= 1	3 c. 8 =	33
4 a =	12 15 4 b	39 =	<u>5</u> 9	4 c. $\frac{3}{7}$ =	_15_
5 a =	3 39 5 b	10 =	38	5 c. 2 =	8 4
6 a =	30 25 6 b	2 =	_36_	6 c. 3 =	_1_
7 a. 6 =	18 7 b	34 =	1	7 c. <u>1</u> =	<u>3</u>
8 a. $\frac{2}{3}$ =		28 =	5	8 c. $\frac{5}{3}$ =	21
9 a =	33 39	39	13	9 c =	3 3

FRACTIONS WORKSHEET

1 a =	10	1 b . 36	. = 12	1 c. 30 =	6
2 a. 1 =	5 25	2 b. $\frac{5}{4}$	= 32	$\frac{2}{1}$ =	16
3 a. <u>6</u> =	24 28	3 b. 7/6	= 24	3 c. 1 =	9
4 a. $\frac{1}{7}$ =	3	b . $\frac{5}{8}$	= 20	4 c. $\frac{32}{26}$ =	_16
5 a. $\frac{1}{8}$ =	4	b. 25	$=\frac{6}{5}$	5 c. $\frac{34}{26}$ =	13
6 a. <u>27</u> =	1 6	5 b 5	$=$ $=$ $\frac{3}{1}$	6 c. $\frac{1}{5}$ =	15
7 a. $\frac{6}{9}$ =	3	7 b 39	= <u>12</u> 13	7 c. 11 =	33
8 a =	<u>8</u> 15	3 b	= 18 12	8 c. 32 =	15
9 a =	13 9	9 b . $\frac{2}{9}$	= 27	9 c. 28 =	10

FRACTIONS WORKSHEET

1 a =	$\frac{1}{4}$ 1 b. $\frac{4}{33}$ = $\frac{12}{33}$	1 c. $\frac{24}{36} = {3}$
$\frac{2 \text{ a.}}{2} = \frac{4}{14}$	2 b. $\frac{7}{10} = \frac{28}{10}$	2 c. $\frac{1}{39} = \frac{39}{39}$
$\frac{3 \text{ a.}}{5} = \frac{36}{5}$	3 b = 1	3 c. $\frac{16}{22}$ = $\frac{8}{}$
4 a. 39 =	$\frac{13}{4 \text{ b.}} \frac{9}{4} = \frac{36}{4}$	4 c. $\frac{3}{4}$ = $\frac{1}{4}$
5 a. $\frac{1}{10}$ =		5 c. 10 = 2
6 a = _	$\frac{6}{39}$ 6 b. $\frac{6}{30}$ = $\frac{1}{30}$	6 c. $\frac{1}{1} = \frac{18}{9}$
7 a10 =	$\frac{20}{18}$ 7 b. ${1}$ = $\frac{32}{4}$	7 c. $\frac{15}{15} = {1}$
$\frac{8 \text{ a.}}{5} = \frac{8}{40}$	8 b. $\frac{4}{28} = {7}$	8 c. ${1} = \frac{2}{2}$
9 a. $\frac{9}{4} = \frac{27}{4}$	9 b. 39 = 1	9 c. ${4} = \frac{35}{20}$

FRACTIONS WORKSHEET

1 a =	$\frac{1}{4}$ 1 b.	=	<u>12</u> 33	1 c.	24 =	3
$\frac{2 \text{ a.}}{2} = \frac{2}{1}$	4 2 b.	7 =	_28_	2 c.	<u>1</u> =	39 39
3 a. $\frac{9}{5} = \frac{3}{5}$	3 b.		13	3 c.	<u>16</u> =	8
4 a. 39 = -	13 4 b.	9 = 0	36_	4 c.	_3=	: 1/4
5 a. $\frac{1}{10}$ = -	1,1	_24 =	3 4	5 c.		· <u>2</u>
6 a =	6 6 b .	<u>6</u> =	1	6 c.	_ =	18 9
7 a =	20 7 b.	 =	32 4	7 c.	15 15 =	1
8 a. ${5} = \frac{8}{4}$	8 b.	<u>4</u> =	7	8 c.	 =	2/2
9 a. $\frac{9}{4} = \frac{2}{4}$	9 b.	<u>39</u> =	1 1	9 c.	<u> </u>	35 20

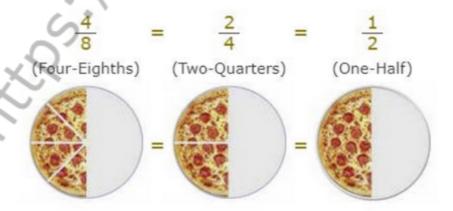
SIMPLIFYING FRACTIONS

To simplify a fraction, divide the top and bottom by the highest number that can divide into both numbers exactly.

$$\frac{2^{1}}{10^{5}}$$

Simplifying (or reducing) fractions means to make the fraction as simple as possible.

Why say four-eighths $(\frac{4}{8})$ when we really mean half $(\frac{1}{2})$?



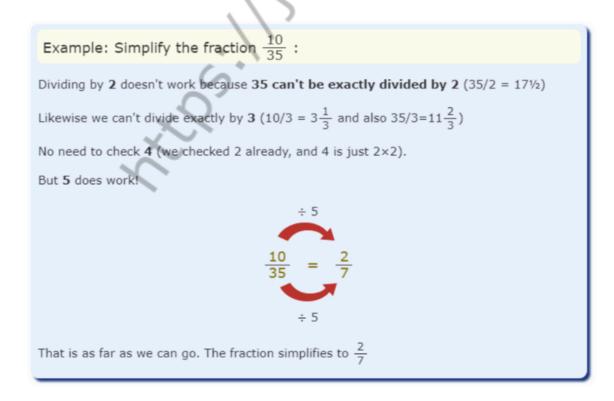
HOW TO SIMPLIFY A FRACTION?

There are two ways to simplify a fraction:

Method 1

Try to exactly divide (only whole number answers) both the top and bottom of the fraction by 2, 3, 5, 7,... etc, until we can't go any further.

Example: Simplify the fraction
$$\frac{24}{108}$$
: $\begin{vmatrix} \div 2 & \div 2 & \div 3 \\ \frac{24}{108} & = & \frac{12}{54} & = & \frac{6}{27} & = & \frac{2}{9} \\ \div 2 & \div 2 & \div 3 & \\ \end{bmatrix}$
That is as far as we can go. The fraction simplifies to $\frac{2}{9}$

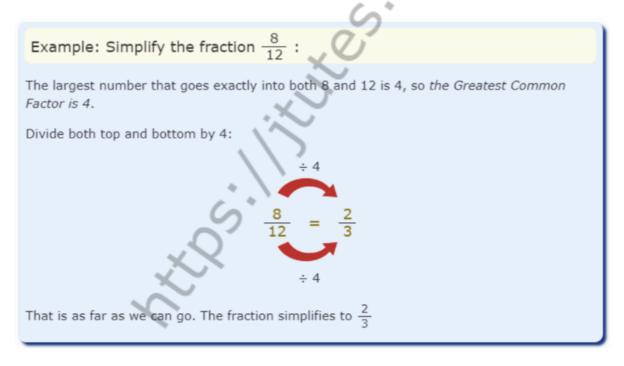


HOW TO SIMPLIFY A FRACTION?

We also don't need to check 6 when we have checked 2 and 3 (6 is 2x3). In fact, when checking from smallest to largest we use prime numbers:

Method 2

Divide both the top and bottom of the fraction by the Greatest Common Factor (you have to work it out first!).



EQUIVALENT FRACTIONS - PATTERN

1)
$$\frac{5}{7} = \frac{10}{14} = \frac{15}{21} = \frac{20}{28} = -$$

2)
$$\frac{1}{3} = - = \frac{5}{15} = \frac{7}{21} = \frac{9}{27}$$

3) $\frac{9}{2} = \frac{18}{4} = \frac{27}{6} = \frac{36}{8} = -$
4) $\frac{8}{5} = \frac{16}{10} = \frac{24}{15} = - = \frac{40}{25}$
5) $\frac{1}{6} = - = \frac{3}{18} = \frac{4}{24} = \frac{5}{30}$
6) $\frac{2}{3} = \frac{6}{9} = \frac{10}{15} = - = \frac{18}{27}$

3)
$$\frac{9}{2} = \frac{18}{4} = \frac{27}{6} = \frac{36}{8} = -$$

4)
$$\frac{8}{5}$$
 = $\frac{16}{10}$ = $\frac{24}{15}$ = - = $\frac{40}{25}$

5)
$$\frac{1}{6}$$
 = $\frac{3}{18}$ = $\frac{4}{24}$ = $\frac{5}{30}$

6)
$$\frac{2}{3} = \frac{6}{9} = \frac{10}{15} = - = \frac{18}{27}$$

7)
$$\frac{7}{4} = \frac{14}{8} = \frac{21}{12} = \frac{28}{16} = -$$

8)
$$\frac{3}{8} = \frac{6}{16} = \frac{9}{24} = - = \frac{15}{40}$$

EQUIVALENT FRACTIONS - PATTERN

1)
$$\frac{1}{9} = \frac{2}{18} = \frac{3}{27} = \frac{4}{36} = -$$

2)
$$\frac{7}{3} = - = \frac{21}{9} = \frac{28}{12} = \frac{35}{15}$$

3)
$$\frac{4}{5} = \frac{12}{15} = \frac{20}{25} = - = \frac{36}{45}$$

2)
$$\frac{7}{3} = -$$
 = $\frac{21}{9} = \frac{28}{12} = \frac{35}{15}$
3) $\frac{4}{5} = \frac{12}{15} = \frac{20}{25} = -$ = $\frac{36}{45}$
4) $\frac{2}{9} = \frac{4}{18} = \frac{6}{27} = \frac{8}{36} = -$
5) $\frac{1}{7} = \frac{2}{14} = \frac{3}{21} = \frac{4}{28} = -$
6) $\frac{8}{3} = \frac{16}{6} = \frac{24}{9} = - = \frac{40}{15}$

5)
$$\frac{1}{7}$$
 = $\frac{2}{14}$ = $\frac{3}{21}$ = $\frac{4}{28}$ = -

6)
$$\frac{8}{3} = \frac{16}{6} = \frac{24}{9} = - = \frac{40}{15}$$

7)
$$\frac{5}{6}$$
 = $-$ = $\frac{15}{18}$ = $\frac{20}{24}$ = $\frac{25}{30}$

8)
$$\frac{1}{2} = \frac{3}{6} = \frac{5}{10} = \frac{7}{14} = -$$

EQUIVALENT FRACTIONS - PATTERN

1)
$$\frac{7}{6}$$
 = $\frac{21}{18}$ = $\frac{35}{30}$ = - = $\frac{63}{54}$

2)
$$\frac{3}{5} = \frac{6}{10} = \frac{9}{15} = \frac{12}{20} = -$$

3) $\frac{1}{8} = - = \frac{3}{24} = \frac{4}{32} = \frac{5}{40}$

4) $\frac{2}{7} = \frac{4}{14} = \frac{6}{21} = - = \frac{10}{35}$

5) $\frac{9}{4} = \frac{18}{8} = \frac{27}{12} = \frac{36}{16} = -$

6) $\frac{1}{5} = - = \frac{5}{25} = \frac{7}{35} = \frac{9}{45}$

3)
$$\frac{1}{8}$$
 = $-$ = $\frac{3}{24}$ = $\frac{4}{32}$ = $\frac{5}{40}$

4)
$$\frac{2}{7} = \frac{4}{14} = \frac{6}{21} = - = \frac{10}{35}$$

5)
$$\frac{9}{4} = \frac{18}{8} = \frac{27}{12} = \frac{36}{16} = -$$

6)
$$\frac{1}{5}$$
 = $-$ = $\frac{5}{25}$ = $\frac{7}{35}$ = $\frac{9}{45}$

7)
$$\frac{4}{7} = \frac{8}{14} = \frac{12}{21} = - = \frac{20}{35}$$

8)
$$\frac{3}{5} = \frac{6}{10} = \frac{9}{15} = \frac{12}{20} = -$$

EQUIVALENT FRACTIONS - PATTERN

1)
$$\frac{3}{5} = \frac{6}{10} = \frac{9}{15} = \frac{12}{20} = \frac{15}{25} = - = \frac{21}{35} = -$$

2)
$$\frac{1}{6} = \frac{3}{18} = \frac{5}{30} = - = \frac{9}{54} = \frac{11}{66} = - = \frac{15}{90}$$

3) $\frac{9}{4} = \frac{18}{8} = - = \frac{36}{16} = - = \frac{54}{24} = \frac{63}{28} = \frac{72}{32}$
4) $\frac{7}{8} = \frac{14}{16} = \frac{21}{24} = - = \frac{35}{40} = - = \frac{49}{56} = \frac{56}{64}$
5) $\frac{2}{3} = \frac{6}{9} = \frac{10}{15} = \frac{14}{21} = \frac{18}{27} = - = \frac{26}{39} = -$
6) $\frac{1}{5} = \frac{3}{15} = - = \frac{7}{35} = - = \frac{11}{55} = \frac{13}{65} = \frac{15}{75}$

3)
$$\frac{9}{4} = \frac{18}{8} = - = \frac{36}{16} = - = \frac{54}{24} = \frac{63}{28} = \frac{72}{32}$$

4)
$$\frac{7}{8} = \frac{14}{16} = \frac{21}{24} = \frac{35}{40} = \frac{49}{56} = \frac{56}{64}$$

5)
$$\frac{2}{3} = \frac{6}{9} = \frac{10}{15} = \frac{14}{21} = \frac{18}{27} = - = \frac{26}{39} = -$$

6)
$$\frac{1}{5} = \frac{3}{15} = - = \frac{7}{35} = - = \frac{11}{55} = \frac{13}{65} = \frac{15}{75}$$

7)
$$\frac{7}{6} = \frac{14}{12} = \frac{21}{18} = - = \frac{35}{30} = \frac{42}{36} = - = \frac{56}{48}$$

8)
$$\frac{4}{3} = \frac{8}{6} = \frac{12}{9} = \frac{16}{12} = \frac{20}{15} = - = \frac{28}{21} = -$$

EQUIVALENT FRACTIONS - PATTERN

1)
$$\frac{1}{2} = \frac{3}{6} = - = \frac{7}{14} = - = \frac{11}{22} = \frac{13}{26} = \frac{15}{30}$$

2)
$$\frac{7}{3} = \frac{14}{6} = \frac{21}{9} = - = \frac{35}{15} = - = \frac{49}{21} = \frac{56}{24}$$

3)
$$\frac{5}{8} = \frac{10}{16} = \frac{15}{24} = \frac{20}{32} = \frac{30}{48} = \frac{40}{64}$$

4)
$$\frac{9}{2} = \frac{18}{4} = \frac{27}{6} = \frac{36}{8} = \frac{45}{10} = - = \frac{63}{14} = -$$

2)
$$\frac{7}{3} = \frac{14}{6} = \frac{21}{9} = - = \frac{35}{15} = - = \frac{49}{21} = \frac{56}{24}$$

3) $\frac{5}{8} = \frac{10}{16} = \frac{15}{24} = \frac{20}{32} = - = \frac{30}{48} = - = \frac{40}{64}$
4) $\frac{9}{2} = \frac{18}{4} = \frac{27}{6} = \frac{36}{8} = \frac{45}{10} = - = \frac{63}{14} = -$
5) $\frac{1}{4} = \frac{2}{8} = \frac{3}{12} = \frac{4}{16} = - = - = \frac{7}{28} = \frac{8}{32}$
6) $\frac{6}{5} = \frac{12}{10} = \frac{18}{15} = - = \frac{30}{25} = \frac{36}{30} = - = \frac{48}{40}$

6)
$$\frac{6}{5} = \frac{12}{10} = \frac{18}{15} = - = \frac{30}{25} = \frac{36}{30} = - = \frac{48}{40}$$

7)
$$\frac{3}{4} = \frac{9}{12} = - = \frac{21}{28} = - = \frac{33}{44} = \frac{39}{52} = \frac{45}{60}$$

8)
$$\frac{2}{7} = \frac{4}{14} = \frac{6}{21} = - = \frac{10}{35} = - = \frac{14}{49} = \frac{16}{56}$$

EQUIVALENT FRACTIONS - PATTERN

1)
$$\frac{4}{9} = \frac{8}{18} = \frac{12}{27} = \frac{16}{36} = - = \frac{24}{54} = - = \frac{32}{72}$$

2)
$$\frac{2}{5} = \frac{6}{15} = \frac{10}{25} = - = \frac{18}{45} = - = \frac{26}{65} = \frac{30}{75}$$

3) $\frac{1}{8} = \frac{2}{16} = \frac{3}{24} = - = \frac{5}{40} = \frac{6}{48} = \frac{7}{56} = -$

4) $\frac{7}{4} = \frac{14}{8} = \frac{21}{12} = \frac{28}{16} = - = \frac{42}{24} = - = \frac{56}{32}$

5) $\frac{5}{9} = \frac{10}{18} = - = - = \frac{25}{45} = \frac{30}{54} = \frac{35}{63} = \frac{40}{72}$

6) $\frac{1}{3} = \frac{2}{6} = \frac{3}{9} = - = \frac{5}{15} = - = \frac{7}{21} = \frac{8}{24}$

3)
$$\frac{1}{8} = \frac{2}{16} = \frac{3}{24} = - = \frac{5}{40} = \frac{6}{48} = \frac{7}{56} = -$$

4)
$$\frac{7}{4} = \frac{14}{8} = \frac{21}{12} = \frac{28}{16} = - = \frac{42}{24} = - = \frac{56}{32}$$

5)
$$\frac{5}{9} = \frac{10}{18} = - = - = \frac{25}{45} = \frac{30}{54} = \frac{35}{63} = \frac{40}{72}$$

6)
$$\frac{1}{3} = \frac{2}{6} = \frac{3}{9} = - = \frac{5}{15} = - = \frac{7}{21} = \frac{8}{24}$$

7)
$$\frac{6}{7} = - = - = \frac{24}{28} = \frac{30}{35} = \frac{36}{42} = \frac{42}{49} = \frac{48}{56}$$

8)
$$\frac{9}{8} = \frac{18}{16} = \frac{27}{24} = \frac{36}{32} = - = \frac{54}{48} = \frac{63}{56} = -$$

CHAPTER 6 - EQUIVALENT FRACTIONS

& SIMPLIFYING FRACTIONS

PATTERNS OF EQUIVALENT FRACTIONS

#1

Fill in the missing number

Fill in the missing number

$$\frac{1}{10} = \frac{1}{20} = \frac{4}{40} = \frac{8}{80} = \frac{16}{160}$$

$$\frac{1}{5} = \frac{2}{10} = \frac{4}{20} = \frac{8}{40} = \frac{16}{80}$$

#3

Fill in the missing number

Fill in the missing number

$$\frac{1}{9} = \frac{2}{18} = \frac{4}{\square} = \frac{8}{72} = \frac{16}{144}$$

$$\frac{1}{10} = \frac{1}{20} = \frac{4}{40} = \frac{8}{80} = \frac{16}{160}$$

#5

Fill in the missing number

Fill in the missing number

$$\frac{1}{\Box} = \frac{2}{10} = \frac{4}{20} = \frac{8}{40} = \frac{16}{80}$$

$$\frac{1}{6} = \frac{2}{\Box} = \frac{4}{24} = \frac{8}{48} = \frac{16}{96}$$

<u>CHAPTER 6 - EQUIVALENT FRACTIONS</u>

& SIMPLIFYING FRACTIONS

PATTERNS OF EQUIVALENT FRACTIONS

#7

Fill in the missing number

Fill in the missing number

$$\frac{1}{\Box} = \frac{2}{6} = \frac{4}{12} = \frac{8}{24} = \frac{16}{48}$$

$$\frac{1}{7} = \frac{2}{\Box} = \frac{4}{28} = \frac{8}{56} = \frac{16}{112}$$

Fill in the missing number

Fill in the missing number

$$\frac{1}{?} = \frac{2}{12} = \frac{4}{24} = \frac{8}{48} = \frac{16}{96}$$

$$\frac{1}{7} = \frac{2}{14} = \frac{4}{28} = \frac{?}{56} = \frac{16}{112}$$

- 0 3
- 0 4

0 9

0 8

0 6

0 11

#12

0 6

#11

Fill in the missing number

Fill in the missing number

$$\frac{1}{7} = \frac{2}{14} = \frac{?}{28} = \frac{8}{56} = \frac{16}{112}$$

$$\frac{1}{10} = \frac{2}{20} = \frac{4}{40} = \frac{8}{80} = \frac{16}{?}$$

- 0 6
- 0 7
- 0 183
- 0 168

- 0 4
- 0 3
- O 171
- 0 160

CHAPTER 6 - EQUIVALENT FRACTIONS

& SIMPLIFYING FRACTIONS

PATTERNS OF EQUIVALENT FRACTIONS

Fill in the missing number

Fill in the missing number

$$\frac{1}{4} = \frac{2}{8} = \frac{4}{16} = \frac{?}{32} = \frac{16}{64}$$

$$\frac{1}{3} = \frac{2}{6} = \frac{4}{12} = \frac{8}{?} = \frac{16}{48}$$

Fill in the missing number

Fill in the missing number

$$\frac{1}{8} = \frac{2}{16} = \frac{4}{32} = \frac{8}{64} = \frac{?}{128}$$

$$\frac{1}{8} = \frac{2}{?} = \frac{4}{32} = \frac{8}{64} = \frac{16}{128}$$

20

#17

Fill in the missing number

Fill in the missing number

$$\frac{1}{8} = \frac{2}{16} = \frac{4}{32} = \frac{8}{?} = \frac{16}{128}$$

$$\frac{1}{2} = \frac{2}{4} = \frac{?}{8} = \frac{8}{16} = \frac{16}{32}$$

0 64

O 58

0 1

0 4

0 79

O 52

O 5

0 3

CHAPTER 6 - EQUIVALENT FRACTIONS

& SIMPLIFYING FRACTIONS

PATTERNS OF EQUIVALENT FRACTIONS

Fill in the missing number

Fill in the missing number

$$\frac{1}{5} = \frac{2}{10} = \frac{?}{20} = \frac{8}{40} = \frac{16}{80}$$

$$\frac{1}{8} = \frac{2}{16} = \frac{4}{32} = \frac{8}{64} = \frac{?}{128}$$

0 4

0 3

4 0 1

0 1

0 6

0 16

0 15

Fill in the missing number

Fill in the missing number

$$\frac{1}{4} = \frac{2}{8} = \frac{4}{16} = \frac{8}{32} = \frac{16}{?}$$

$$\frac{1}{?} = \frac{2}{4} = \frac{4}{8} = \frac{8}{16} = \frac{16}{32}$$

0 64

0 •73

0 3

0 69

7

0 2

Fill in the missing number

Fill in the missing number

$$\frac{1}{?} = \frac{2}{20} = \frac{4}{40} = \frac{8}{80} = \frac{16}{160}$$

$$\frac{1}{?} = \frac{2}{20} = \frac{4}{40} = \frac{8}{80} = \frac{16}{160}$$

0 13

0 10

O 12

0 11

0 8

0 11

0 7

O 10

FRACTIONS WORKSHEET

1 c.
$$\frac{26}{72}$$

6 b.
$$\frac{2}{30}$$

7 a.
$$\frac{7}{21}$$

FRACTIONS WORKSHEET

9 b.
$$\frac{16}{24}$$

FRACTIONS WORKSHEET

2 b.
$$\frac{3}{6}$$

5 b.
$$\frac{12}{33}$$

6 b.
$$\frac{3}{21}$$

6 c.
$$\frac{9}{24}$$

9 c.
$$\frac{4}{20}$$

FRACTIONS WORKSHEET

4 b.
$$\frac{6}{24}$$

6 b.
$$\frac{3}{63}$$

FRACTIONS WORKSHEET

2 b.
$$\frac{20}{96}$$
 2 c. $\frac{10}{10}$

5 a.
$$\frac{37}{37}$$

9 c.
$$\frac{6}{9}$$

FRACTIONS WORKSHEET

5 b.
$$\frac{24}{51}$$

FRACTIONS WORKSHEET

1 c.
$$\frac{7}{21}$$

2 a.
$$\frac{2}{4}$$

2 c.
$$\frac{7}{77}$$

3 a.
$$\frac{3}{3}$$

FRACTIONS WORKSHEET

2 b.
$$\frac{21}{36}$$
 2 c. $\frac{9}{39}$

4 b.
$$\frac{35}{42}$$

6 c.
$$\frac{8}{72}$$

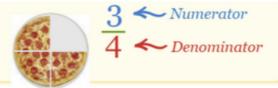
FRACTIONS WORKSHEET

$$\frac{2 \text{ c.}}{14}$$

5 c.
$$\frac{4}{4}$$

ADDING FRACTIONS - SAME DENOMINATOR

A fraction like $\frac{3}{4}$ says we have 3 out of the 4 parts the whole is divided into.



To add fractions there are Three Simple Steps:

- Step 1: Make sure the bottom numbers (the denominators) are the same
- **Step 2:** Add the top numbers (the numerators), put that answer over the denominator
- Step 3: Simplify the fraction (if needed)

Example:

$$\frac{1}{4} + \frac{1}{4}$$

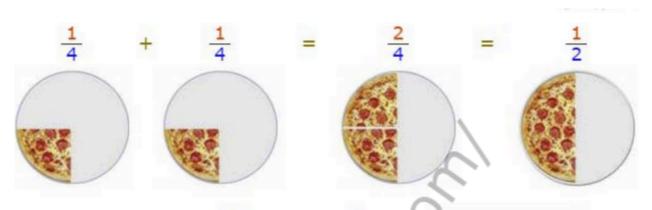
- **Step 1:** The bottom numbers (the denominators) are already the same. Go straight to step 2.
- **Step 2:** Add the top numbers and put the answer over the same denominator:

$$\frac{1}{4} + \frac{1}{4} = \frac{1+1}{4} = \frac{2}{4}$$

• **Step 3:** Simplify the fraction:

$$\frac{2}{4} = \frac{1}{2}$$

In picture form it looks like this:



... and do you see how $\frac{2}{4}$ is simpler as $\frac{1}{2}$? (see <u>Equivalent Fractions</u>.)

$$1.\frac{1}{4} + \frac{3}{4} = 5.\frac{14}{24} + \frac{10}{24} =$$

$$2.\frac{13}{4} + \frac{3}{4} = 6.\frac{4}{9} + \frac{5}{9} =$$

$$3.\frac{14}{8} + \frac{2}{8} = 7.\frac{1}{2} + \frac{1}{2} =$$

$$4.\frac{1}{2} + \frac{15}{2} = 8.\frac{5}{2} + \frac{15}{2} =$$

$$1.rac{1}{4} + rac{3}{4} =$$

$$5.rac{14}{24}+rac{10}{24}=$$

$$2.\frac{13}{4} + \frac{3}{4} =$$

$$6.\frac{4}{9} + \frac{5}{9} =$$

$$3.\frac{14}{8} + \frac{2}{8} =$$

$$7.\frac{1}{2} + \frac{1}{2} =$$

$$4.\frac{1}{2} + \frac{15}{2} =$$

$$8.\frac{5}{2} + \frac{15}{2} =$$

$$9.\frac{13}{28} + \frac{15}{28} =$$

$$13.\frac{8}{5} + \frac{7}{5} =$$

$$10.\frac{11}{5} + \frac{14}{5} =$$

$$14.\frac{10}{24} + \frac{14}{24} =$$

$$11.\frac{7}{4} + \frac{13}{4} =$$

$$15.\frac{9}{2} + \frac{7}{2} =$$

$$12.\frac{9}{8} + \frac{15}{8} =$$

$$16.\frac{6}{20} + \frac{14}{20} =$$

$$1.\frac{7}{3} + \frac{2}{3} =$$

$$5.\frac{5}{10} + \frac{15}{10} =$$

$$2.\frac{15}{2}+\frac{11}{2}=$$

$$6.\frac{15}{10} + \frac{5}{10} =$$

$$3.\frac{9}{11} + \frac{13}{11} =$$

$$7.\frac{1}{6} + \frac{11}{6} =$$

$$4.\frac{11}{5} + \frac{14}{5} =$$

$$8.\frac{12}{24}+\frac{12}{24}=$$

$$9.\frac{3}{2} + \frac{9}{2} =$$

$$13.\frac{10}{8} + \frac{6}{8} =$$

$$10.\frac{5}{6} + \frac{1}{6} =$$

$$14.rac{2}{5}+rac{3}{5}=$$

$$11.\frac{9}{12} + \frac{15}{12} =$$

$$15.\frac{5}{8} + \frac{3}{8} =$$

$$12.\frac{13}{3} + \frac{2}{3} =$$

$$16.\frac{7}{17} + \frac{10}{17} =$$

$$1.\frac{7}{4} + \frac{5}{4} =$$

$$5.\frac{4}{5} + \frac{6}{5} =$$

$$2.\frac{13}{3} + \frac{5}{3} =$$

$$6.\frac{4}{6} + \frac{2}{6} =$$

$$3.\frac{10}{9} + \frac{8}{9} =$$

$$7.\frac{14}{29} + \frac{15}{29} =$$

$$4.\frac{10}{25}+\frac{15}{25}=$$

$$8.\frac{3}{4} + \frac{13}{4} =$$

$$9.\frac{15}{23} + \frac{8}{23} =$$

$$13.\frac{10}{24} + \frac{14}{24} =$$

$$10.\frac{2}{4} + \frac{14}{4} =$$

$$14.\frac{11}{18} + \frac{7}{18} =$$

$$11.\frac{4}{14} + \frac{10}{14} =$$

$$15.\frac{5}{17} + \frac{12}{17} =$$

$$12.rac{7}{2}+rac{9}{2}=$$

$$16.\frac{5}{8} + \frac{11}{8} =$$

$$1.rac{6}{11}+rac{10}{22}=$$

$$5.\frac{2}{6} + \frac{2}{3} =$$

$$2.\frac{11}{2} + \frac{2}{4} =$$

$$6.\frac{9}{5} + \frac{12}{10} =$$

$$3.\frac{5}{2} + \frac{3}{2} =$$

$$7.\frac{14}{8} + \frac{7}{28} =$$

$$4.\frac{10}{8} + \frac{6}{8} =$$

$$8.\frac{15}{9} + \frac{12}{9} =$$

$$9.\frac{8}{16} + \frac{10}{4} =$$

$$13.\frac{9}{8} + \frac{7}{8} =$$

$$10.\frac{10}{15} + \frac{12}{9} =$$

$$14.rac{6}{10}+rac{14}{10}=$$

$$11.\frac{4}{28} + \frac{6}{7} =$$

$$15.\frac{7}{2} + \frac{7}{14} =$$

$$12.\frac{12}{9}+\frac{5}{3}=$$

$$16.\frac{9}{18} + \frac{1}{2} =$$

$$1.rac{5}{10}+rac{12}{24}=$$

$$5.\frac{11}{5} + \frac{9}{5} =$$

$$2.rac{11}{7}+rac{13}{27}=$$

$$6.\frac{7}{5} + \frac{15}{25} =$$

$$3.\frac{13}{9} + \frac{14}{9} =$$

$$7.\frac{14}{4} + \frac{7}{2} =$$

$$4.rac{14}{12}+rac{7}{6}=$$

$$8.\frac{14}{21} + \frac{10}{30} =$$

$$9.\frac{11}{3} + \frac{5}{15} =$$

$$13.\frac{12}{9} + \frac{10}{15} =$$

$$10.\frac{4}{16} + \frac{11}{4} =$$

$$14.\frac{14}{8} + \frac{3}{12} =$$

$$11.\frac{5}{7} + \frac{6}{21} =$$

$$15.\frac{12}{24} + \frac{1}{2} =$$

$$12.\frac{6}{4} + \frac{5}{2} =$$

$$16.\frac{13}{26} + \frac{12}{8} =$$

$$1.\frac{12}{18} + \frac{5}{15} =$$

$$5.\frac{14}{28} + \frac{15}{6} =$$

$$2.rac{9}{6}+rac{12}{24}=$$

$$6.\frac{14}{4} + \frac{1}{2} =$$

$$3.rac{12}{8}+rac{12}{24}=$$

$$7.\frac{12}{15} + \frac{5}{25} =$$

$$4.rac{9}{2}+rac{13}{26}=$$

$$8.\frac{4}{18} + \frac{7}{9} =$$

$$9.\frac{11}{5} + \frac{12}{15} =$$

$$13.\frac{4}{8} + \frac{15}{30} =$$

$$10.\frac{15}{6} + \frac{5}{2} =$$

$$14.\frac{2}{10} + \frac{4}{5} =$$

$$11.\frac{10}{18} + \frac{12}{27} =$$

$$15.\frac{10}{24} + \frac{7}{12} =$$

$$12.\frac{6}{18} + \frac{14}{3} =$$

$$16.\frac{13}{2} + \frac{5}{2} =$$

$$1.\frac{39}{4} + \frac{3}{5} =$$

$$5.\frac{27}{2} + \frac{33}{6} =$$

$$2.rac{44}{6}+rac{35}{6}=$$

$$6.\frac{3}{12} + \frac{46}{5} =$$

$$3.\frac{22}{9} + \frac{37}{8} =$$

$$7.\frac{44}{6} + \frac{4}{6} =$$

$$4.\frac{41}{12}+\frac{22}{10}=$$

$$8.\frac{33}{6} + \frac{7}{2} =$$

$$9.\frac{4}{10} + \frac{6}{9} =$$

$$13.\frac{17}{12}+\frac{34}{4}=$$

$$10.\frac{35}{4} + \frac{27}{9} =$$

$$14.\frac{36}{11} + \frac{21}{5} =$$

$$11.\frac{44}{12} + \frac{21}{8} =$$

$$15.\frac{34}{2} + \frac{28}{5} =$$

$$12.\frac{30}{7}+\frac{35}{9}=$$

$$16.\frac{50}{11}+\frac{39}{2}=$$

$$1.\frac{26}{11} + \frac{37}{4} =$$

$$5.\frac{36}{11} + \frac{22}{6} =$$

$$2.rac{48}{5}+rac{6}{10}=$$

$$6.\frac{21}{8} + \frac{5}{9} =$$

$$3.\frac{10}{3} + \frac{13}{4} =$$

$$7.\frac{27}{10} + \frac{21}{5} =$$

$$4.\frac{8}{12}+\frac{41}{2}=$$

$$8.\frac{30}{8} + \frac{2}{3} =$$

$$9.\frac{23}{2} + \frac{45}{2} =$$

$$13.\frac{17}{3} + \frac{41}{7} =$$

$$10.\frac{50}{12} + \frac{34}{4} =$$

$$14.\frac{9}{8} + \frac{23}{9} =$$

$$11.\frac{1}{9} + \frac{50}{6} =$$

$$15.\frac{25}{7} + \frac{33}{7} =$$

$$12.\frac{24}{7}+\frac{39}{2}=$$

$$16.\frac{9}{10} + \frac{16}{5} =$$

$$1.\frac{37}{8} + \frac{18}{8} =$$

$$5.\frac{1}{4} + \frac{38}{10} =$$

$$2.rac{40}{11}+rac{1}{3}=$$

$$6.\frac{37}{4} + \frac{21}{7} =$$

$$3.\frac{7}{12} + \frac{11}{9} =$$

$$7.\frac{50}{8} + \frac{7}{2} =$$

$$4.\frac{9}{11} + \frac{41}{4} =$$

$$8.\frac{10}{12} + \frac{19}{6} =$$

$$1.rac{15}{11}+rac{39}{10}=$$

$$5.\frac{11}{12} + \frac{29}{8} =$$

$$2.rac{29}{4}+rac{19}{6}=$$

$$6.\frac{28}{8} + \frac{50}{3} =$$

$$3.\frac{47}{10}+\frac{23}{10}=$$

$$7.\frac{21}{4} + \frac{31}{5} =$$

$$4.rac{35}{12}+rac{11}{4}=$$

$$8.\frac{43}{4} + \frac{3}{7} =$$

$$1.\frac{14}{4} + \frac{23}{8} =$$

$$5.\frac{49}{12} + \frac{15}{10} =$$

$$2.\frac{3}{11}+\frac{13}{3}=$$

$$6.\frac{19}{8} + \frac{49}{2} =$$

$$3.\frac{1}{6} + \frac{49}{9} =$$

$$7.rac{26}{3}+rac{38}{6}=$$

$$4.\frac{36}{8} + \frac{4}{9} =$$

$$8.\frac{6}{7} + \frac{20}{7} =$$

$$9.\frac{16}{10} + \frac{1}{5} =$$

$$13.\frac{27}{11} + \frac{23}{9} =$$

$$10.\frac{2}{10} + \frac{36}{10} =$$

$$14.\frac{14}{8} + \frac{7}{8} =$$

$$11.\frac{8}{12} + \frac{37}{4} =$$

$$15.\frac{25}{2} + \frac{49}{6} =$$

$$12.\frac{47}{8} + \frac{11}{9} =$$

$$16.\frac{9}{6} + \frac{7}{4} =$$

CHAPTER 8 - SUBTRACTIONS

SUBTRACTING FRACTIONS - SAME DENOMINATOR

There are 3 simple steps to subtract fractions

- **Step 1:** Make sure the bottom numbers (the denominators) are the same
- **Step 2:** Subtract the top numbers (the numerators). Put the answer over the same denominator.
- **Step 3:** Simplify the fraction (if needed).

Example 1:

$$\frac{3}{4} - \frac{1}{4}$$

Step 1. The bottom numbers are already the same. Go straight to step 2.

Step 2. Subtract the top numbers and put the answer over the same denominator:

$$\frac{3}{4} - \frac{1}{4} = \frac{3-1}{4} = \frac{2}{4}$$

Step 3. Simplify the fraction:

$$\frac{2}{4} = \frac{1}{2}$$

(If you are unsure of the last step see Equivalent Fractions .)

$$1.\frac{14}{6} - \frac{8}{6} =$$

$$5.\frac{11}{2} - \frac{11}{2} =$$

$$2.\frac{3}{25}-\frac{3}{25}=$$

$$3.\frac{13}{3} - \frac{4}{3} =$$

$$3.\frac{10}{3} - \frac{7}{3} =$$

$$7.\frac{1}{2} - \frac{1}{2} =$$

$$4.\frac{14}{5} - \frac{9}{5} =$$

$$8.\frac{8}{12} - \frac{8}{12} =$$

$$9.\frac{6}{25} - \frac{6}{25} =$$

$$13.\frac{13}{8} - \frac{13}{8} =$$

$$10.\frac{7}{12} - \frac{7}{12} =$$

$$14.\frac{13}{18} - \frac{13}{18} =$$

$$11.\frac{13}{2} - \frac{5}{2} =$$

$$15.\frac{13}{23} - \frac{13}{23} =$$

$$12.\frac{13}{4} - \frac{1}{4} =$$

$$16.\frac{15}{17} - \frac{15}{17} =$$

$$1.\frac{12}{9} - \frac{12}{9} =$$

$$5.rac{2}{4}-rac{2}{4}=$$

$$2.\frac{19}{11} - \frac{8}{11} =$$

$$6.\frac{42}{4} - \frac{30}{4} =$$

$$3.\frac{31}{2} - \frac{9}{2} =$$

$$7.\frac{16}{3} - \frac{10}{3} =$$

$$4.\frac{27}{8} - \frac{3}{8} =$$

$$8.\frac{50}{11} - \frac{50}{11} =$$

$$9.\frac{29}{7} - \frac{1}{7} =$$

$$13.\frac{34}{6} - \frac{28}{6} =$$

$$10.\frac{45}{2} - \frac{35}{2} =$$

$$14.\frac{38}{11} - \frac{16}{11} =$$

$$11.\frac{49}{2} - \frac{45}{2} =$$

$$15.\frac{35}{6} - \frac{23}{6} =$$

$$12.\frac{38}{12} - \frac{26}{12} =$$

$$16.\frac{47}{2} - \frac{3}{2} =$$

$$1.\frac{12}{5} - \frac{2}{5} =$$

$$5.\frac{39}{5} - \frac{29}{5} =$$

$$2.rac{23}{7}-rac{9}{7}=$$

$$6.\frac{50}{11} - \frac{39}{11} =$$

$$3.\frac{13}{4} - \frac{9}{4} =$$

$$7.\frac{34}{9} - \frac{25}{9} =$$

$$4.\frac{21}{4} - \frac{17}{4} =$$

$$8.\frac{17}{3} - \frac{14}{3} =$$

$$9.\frac{50}{3} - \frac{32}{3} =$$

$$13.\frac{46}{8} - \frac{22}{8} =$$

$$10.\frac{47}{6} - \frac{35}{6} =$$

$$14.\frac{20}{3} - \frac{20}{3} =$$

$$11.\frac{48}{7} - \frac{48}{7} =$$

$$15.rac{24}{5}-rac{14}{5}=$$

$$12.\frac{23}{5} - \frac{3}{5} =$$

$$16.\frac{38}{10} - \frac{8}{10} =$$

$$1.\frac{4}{12} - \frac{1}{3} =$$

$$5.\frac{15}{2} - \frac{7}{14} =$$

$$2.rac{3}{25}-rac{3}{25}=$$

$$6.\frac{14}{10} - \frac{14}{10} =$$

$$3.\frac{4}{20}-\frac{3}{15}=$$

$$7.\frac{10}{3} - \frac{4}{12} =$$

$$4.\frac{7}{27}-\frac{7}{27}=$$

$$8.\frac{1}{6} - \frac{1}{21} =$$

$$9.\frac{15}{10} - \frac{7}{14} =$$

$$13.\frac{6}{15} - \frac{6}{15} =$$

$$10.\frac{13}{2} - \frac{3}{10} =$$

$$14.\frac{2}{29} - \frac{2}{29} =$$

$$11.\frac{5}{20} - \frac{3}{12} =$$

$$15.\frac{12}{10} - \frac{4}{20} =$$

$$12.\frac{7}{18} - \frac{7}{18} =$$

$$16.\frac{6}{12} - \frac{14}{28} =$$

$$1.\frac{12}{18} - \frac{12}{18} =$$

$$5.\frac{2}{6} - \frac{9}{27} =$$

$$2.rac{4}{24}-rac{1}{6}=$$

$$6.\frac{11}{6} - \frac{5}{15} =$$

$$3.\frac{14}{13}-\frac{2}{26}=$$

$$7.\frac{3}{21} - \frac{1}{7} =$$

$$4.\frac{4}{22}-\frac{4}{22}=$$

$$8.\frac{6}{5} - \frac{6}{5} =$$

$$9.\frac{14}{21} - \frac{10}{15} =$$

$$13.\frac{9}{2} - \frac{13}{26} =$$

$$10.\frac{11}{7} - \frac{8}{14} =$$

$$14.\frac{7}{19} - \frac{7}{19} =$$

$$11.\frac{10}{24} - \frac{2}{11} =$$

$$15.\frac{9}{6} - \frac{11}{22} =$$

$$12.\frac{5}{15} - \frac{8}{24} =$$

$$16.\frac{10}{30} - \frac{6}{18} =$$

$$1.\frac{14}{28} - \frac{10}{20} =$$

$$5.\frac{3}{24} - \frac{2}{16} =$$

$$2.\frac{3}{15}-\frac{4}{20}=$$

$$6.\frac{7}{5} - \frac{10}{25} =$$

$$3.\frac{4}{8} - \frac{12}{24} =$$

$$7.\frac{11}{8} - \frac{11}{8} =$$

$$4.\frac{8}{10} - \frac{8}{10} =$$

$$8.\frac{11}{2} - \frac{5}{10} =$$

$$9.\frac{1}{3} - \frac{9}{27} =$$

$$13.\frac{11}{6} - \frac{15}{18} =$$

$$10.\frac{9}{27} - \frac{6}{18} =$$

$$14.\frac{9}{18} - \frac{11}{22} =$$

$$11.\frac{4}{9} - \frac{4}{9} =$$

$$15.\frac{15}{24} - \frac{13}{12} =$$

$$12.\frac{13}{25} - \frac{13}{25} =$$

$$16.\frac{13}{11} - \frac{13}{11} =$$

$$1.\frac{29}{6} - \frac{7}{2} =$$

$$5.\frac{41}{8} - \frac{4}{7} =$$

$$2.\frac{49}{11} - \frac{11}{7} =$$

$$6.\frac{24}{3} - \frac{38}{8} =$$

$$3.\frac{47}{11} - \frac{4}{10} =$$

$$7.\frac{42}{8} - \frac{4}{9} =$$

$$4.\frac{43}{9} - \frac{26}{6} =$$

$$8.\frac{32}{4} - \frac{5}{4} =$$

$$9.\frac{48}{11} - \frac{34}{8} =$$

$$13.\frac{40}{6} - \frac{5}{8} =$$

$$10.\frac{15}{6} - \frac{6}{9} =$$

$$14.\frac{29}{8} - \frac{15}{10} =$$

$$11.\frac{47}{3} - \frac{27}{10} =$$

$$15.\frac{37}{5} - \frac{7}{4} =$$

$$12.\frac{41}{2} - \frac{43}{5} =$$

$$16.\frac{26}{4} - \frac{39}{10} =$$

$$1.rac{47}{6}-rac{24}{10}=$$

$$5.\frac{50}{12}-\frac{32}{10}=$$

$$2.\frac{50}{9} - \frac{5}{4} =$$

$$6.\frac{41}{6} - \frac{35}{9} =$$

$$3.\frac{43}{3} - \frac{16}{10} =$$

$$7.\frac{42}{8} - \frac{24}{7} =$$

$$4.\frac{31}{11} - \frac{18}{10} =$$

$$8.\frac{33}{6} - \frac{14}{8} =$$

$$9.\frac{39}{10} - \frac{18}{10} =$$

$$13.\frac{25}{11} - \frac{2}{7} =$$

$$10.\frac{40}{12} - \frac{5}{2} =$$

$$14.\frac{46}{10} - \frac{11}{10} =$$

$$11.\frac{45}{6} - \frac{10}{9} =$$

$$15.\frac{17}{2} - \frac{46}{7} =$$

$$12.\frac{37}{5} - \frac{25}{7} =$$

$$16.\frac{38}{11} - \frac{1}{6} =$$

$$1.\frac{30}{4} - \frac{34}{7} =$$

$$5.\frac{4}{3} - \frac{5}{4} =$$

$$2.\frac{11}{6} - \frac{7}{8} =$$

$$6.\frac{45}{6} - \frac{16}{10} =$$

$$3.\frac{5}{2} - \frac{7}{9} =$$

$$7.\frac{45}{6} - \frac{16}{10} =$$

$$4.\frac{48}{11} - \frac{5}{10} =$$

$$8.\frac{38}{5} - \frac{8}{10} =$$

$$9.\frac{34}{7} - \frac{1}{7} =$$

$$13.\frac{41}{11} - \frac{34}{10} =$$

$$10.\frac{23}{4} - \frac{1}{7} =$$

$$14.\frac{37}{8} - \frac{12}{5} =$$

$$11.\frac{44}{5} - \frac{7}{2} =$$

$$15.\frac{11}{9} - \frac{6}{9} =$$

$$12.\frac{46}{5} - \frac{19}{3} =$$

$$16.\frac{38}{6} - \frac{45}{8} =$$

$$1.\frac{18}{7} - \frac{17}{7} =$$

$$5.\frac{25}{4} - \frac{19}{4} =$$

$$2.\frac{36}{7} - \frac{5}{8} =$$

$$6.\frac{34}{4} - \frac{11}{10} =$$

$$3.\frac{13}{3} - \frac{15}{4} =$$

$$7.\frac{35}{6} - \frac{21}{5} =$$

$$4.\frac{13}{5} - \frac{9}{7} =$$

$$8.\frac{38}{12} - \frac{23}{8} =$$

$$9.\frac{40}{7} - \frac{1}{3} =$$

$$13.\frac{47}{4} - \frac{50}{6} =$$

$$10.\frac{37}{11} - \frac{20}{6} =$$

$$14.\frac{20}{3} - \frac{13}{8} =$$

$$11.\frac{15}{4} - \frac{24}{10} =$$

$$15.\frac{44}{2} - \frac{37}{7} =$$

$$12.\frac{38}{4} - \frac{17}{7} =$$

$$16.\frac{29}{4} - \frac{1}{6} =$$

MULTIPLYING FRACTIONS

There are 3 Simple Steps to Multiply Fractions:

- **Step 1:** Multiply the top numbers (the numerators).
- **Step 2:** Multiply the bottom numbers (the denominators).
- **Step 3:** Simplify the fraction (if needed)

Example:

$$\frac{1}{2} \times \frac{2}{5}$$

Step 1. Multiply the top numbers:

$$\frac{1}{2} \times \frac{2}{5} = \frac{1 \times 2}{2} = \frac{2}{2}$$

Step 2. Multiply the bottom numbers:

$$\frac{1}{2} \times \frac{2}{5} = \frac{1 \times 2}{2 \times 5} = \frac{2}{10}$$

Step 3. Simplify the fraction:

$$\frac{2}{10} = \frac{1}{5}$$

FRACTIONS AND WHOLE NUMBERS

What about multiplying fractions and whole numbers? Make the whole number a fraction, by putting it over 1.

Example: 5 is also $\frac{5}{1}$

Then continue as before.

Example:

 $\frac{2}{3} \times 5$

Make 5 into $\frac{5}{1}$:

$$\frac{2}{3} \times \frac{5}{1}$$

Now just go ahead as normal.

Multiply tops and bottoms:

$$\frac{2}{3} \times \frac{5}{1} = \frac{2 \times 5}{3 \times 1} = \frac{10}{3}$$

The fraction is already as simple as it can be.

Answer =
$$\frac{10}{3}$$

DIVIDING FRACTIONS

There are 3 Simple Steps to Divide Fractions:

- **Step 1:** Turn the second fraction (the one you want to divide by) upside down (this is now a reciprocal).
- **Step 2:** Multiply the first fraction by that reciprocal
- **Step 3:** Simplify the fraction (if needed)

Example:

$$\frac{1}{2}$$
 (+) $\frac{1}{6}$

Step 1. Turn the second fraction upside down (it becomes a reciprocal):

$$\frac{1}{6}$$
 becomes $\frac{6}{1}$

Step 2. Multiply the first fraction by that reciprocal:

$$\frac{1}{2} \times \frac{6}{1} = \frac{1 \times 6}{2 \times 1} = \frac{6}{2}$$

(... multiply bottoms)

Step 3. Simplify the fraction:

$$\frac{6}{2} = 3$$

FRACTIONS AND WHOLE NUMBERS

What about division with fractions and whole numbers? Make the whole number a fraction, by putting it over 1.

Example: 5 is also $\frac{5}{1}$

Example:

 $\frac{2}{3}$

Make 5 into $\frac{5}{1}$:

 $\frac{2}{3} \div \frac{5}{1}$

Then continue as before.

Step 1. Turn the second fraction upside down (the reciprocal):

 $\frac{5}{1}$ becomes $\frac{1}{5}$

Step 2. Multiply the first fraction by that reciprocal:

$$\frac{2}{3} \times \frac{1}{5} = \frac{2 \times 1}{3 \times 5} = \frac{2}{15}$$

Step 3. Simplify the fraction:

The fraction is already as simple as it can be.

Answer = $\frac{2}{15}$

WHY TURN THE FRACTIONS UPSIDE DOWN

Because dividing is the opposite of multiplying

For example:



- · multiply by the top number
- · divide by the bottom number

$\frac{3}{4}$ $\div \frac{\times 3}{4}$

But for DIVISION we:

- · divide by the top number
- · multiply by the bottom number

Example: dividing by $^5/_2$ is the same as multiplying by $^2/_5$

$$\div \frac{5}{2}$$
 same! $\times \frac{2}{5}$ $\stackrel{\times 2}{\longleftrightarrow}$ $\stackrel{\times 2}{\longleftrightarrow}$

So instead of dividing by a fraction, it is easier to turn that fraction upside down, then do a multiply.

$$1.rac{3}{8} imesrac{5}{2}=$$

$$5.\frac{3}{8} imes \frac{2}{10} =$$

$$2.rac{8}{7} imesrac{3}{6}=$$

$$6.\frac{3}{10} \times \frac{8}{6} =$$

$$3.rac{9}{8} imesrac{8}{7}=$$

$$7.rac{4}{6} imesrac{1}{2}=$$

$$4.\frac{1}{7}\times\frac{5}{9}=$$

$$8.rac{8}{9} imesrac{7}{4}=$$

$$9.rac{8}{3} imesrac{6}{5}=$$

$$13.\frac{1}{5}\times\frac{3}{7}=$$

$$10.\frac{7}{10}\times\frac{7}{6}=$$

$$14.\frac{10}{9} \times \frac{10}{9} =$$

$$11.\frac{4}{5} \times \frac{10}{4} =$$

$$15.\frac{9}{10}\times\frac{1}{7}=$$

$$12.\frac{1}{7}\times\frac{6}{4}=$$

$$16.\frac{10}{7} imes \frac{10}{3} =$$

$$1.rac{2}{6} imesrac{8}{3}=$$

$$5.\frac{1}{7} imesrac{4}{8}=$$

$$2.\frac{6}{4}\times\frac{6}{2}=$$

$$6.\frac{10}{5} imes \frac{4}{5} =$$

$$3.\frac{4}{10}\times\frac{8}{9} =$$

$$7.\frac{9}{10} imesrac{9}{5}=$$

$$4.\frac{2}{8}\times\frac{5}{6}=$$

$$8.\frac{8}{9} imes \frac{10}{6}$$

$$9.\frac{3}{10}\times\frac{7}{5}=$$

$$13.\frac{4}{9}\times\frac{7}{2}=$$

$$10.\frac{5}{8}\times\frac{2}{4}=$$

$$14.\frac{2}{4} \times \frac{2}{9} =$$

$$11.\frac{8}{9} \times \frac{7}{7} =$$

$$15.\frac{6}{10}\times\frac{4}{10}=$$

$$12.\frac{10}{6}\times\frac{2}{5}=$$

$$16.\frac{1}{8}\times\frac{1}{8}=$$

$$1.rac{6}{7} imesrac{3}{6}=$$

$$5.rac{1}{2} imesrac{3}{5}=$$

$$2.\frac{9}{2}\times\frac{5}{3}=$$

$$6.\frac{3}{6} \times \frac{3}{6} =$$

$$3.rac{2}{8} imesrac{10}{6}=$$

$$7.\frac{5}{6} imes \frac{8}{7} =$$

$$4.rac{5}{7} imesrac{3}{7}=$$

$$8.\frac{4}{6} imes \frac{4}{5} =$$

$$9.rac{6}{7} imesrac{2}{6}=$$

$$13.\frac{10}{3}\times\frac{2}{9}=$$

$$10.\frac{1}{9} imes \frac{1}{10} =$$

$$14.\frac{4}{8} \times \frac{7}{3} =$$

$$11.\frac{3}{9} imesrac{4}{9}=$$

$$15.\frac{8}{5} imes \frac{4}{6} =$$

$$12.\frac{1}{7}\times\frac{2}{10}=$$

$$16.\frac{7}{3}\times\frac{5}{3}=$$

$$1.rac{1}{5} imesrac{7}{3}=$$

$$5.rac{4}{3} imesrac{9}{6}=$$

$$2.\frac{10}{6}\times\frac{1}{8}=$$

$$6.\frac{4}{7} \times \frac{6}{10} =$$

$$3.rac{9}{4} imesrac{7}{5}=$$

$$7.\frac{4}{8} \times \frac{9}{8} =$$

$$4.\frac{2}{5}\times\frac{9}{10}=$$

$$8.\frac{6}{9} imesrac{9}{4}=$$

$$9.rac{3}{7} imesrac{7}{8}=$$

$$13.\frac{8}{9} imes \frac{10}{6} =$$

$$10.\frac{2}{8}\times\frac{9}{6}=$$

$$14.\frac{5}{9} imes \frac{1}{3} =$$

$$11.\frac{1}{5} \times \frac{7}{8} =$$

$$\boxed{15.\frac{4}{9}\times\frac{1}{7}=}$$

$$12.\frac{2}{4}\times\frac{1}{7}=$$

$$16.\frac{10}{9} imes \frac{4}{9} =$$

$$1.\frac{6}{8}\times\frac{42}{5}=$$

$$5.\frac{26}{6}\times\frac{7}{10}=$$

$$2.\frac{35}{3}\times\frac{32}{4}=$$

$$6.\frac{20}{3} imesrac{5}{4}=$$

$$3.\frac{2}{11}\times\frac{45}{7}=$$

$$7.\frac{42}{11} imes \frac{20}{9} =$$

$$4.\frac{1}{9}\times\frac{19}{8}=$$

$$8.\frac{35}{12}\times\frac{2}{3}=$$

$$9.\frac{47}{11}\times\frac{2}{8}=$$

$$13.\frac{23}{11} imes \frac{27}{8} =$$

$$10.\frac{6}{11}\times\frac{24}{2}=$$

$$14.\frac{5}{11} imes \frac{29}{10} =$$

$$11.\frac{3}{6}\times\frac{45}{10}=$$

$$15.\frac{43}{12}\times\frac{3}{9}=$$

$$12.\frac{9}{7}\times\frac{14}{4}=$$

$$16.\frac{12}{8}\times\frac{46}{5}=$$

$$1.\frac{43}{6}\times\frac{19}{2}=$$

$$5.\frac{43}{3}\times\frac{19}{2}=$$

$$2.\frac{15}{12}\times\frac{7}{9}=$$

$$6.\frac{49}{8} \times \frac{5}{4} =$$

$$3.\frac{36}{8}\times\frac{50}{4}=$$

$$7.\frac{28}{5}\times\frac{11}{5}=$$

$$4.rac{49}{11} imesrac{31}{6}=$$

$$8.\frac{43}{12}\times\frac{4}{7}=$$

$$9.rac{19}{11} imesrac{23}{10}=$$

$$13.rac{37}{2} imesrac{29}{10}=$$

$$10.rac{27}{11} imesrac{45}{2}=$$

$$14.\frac{29}{6} \times \frac{15}{7} =$$

$$11.\frac{46}{11} \times \frac{37}{9} =$$

$$15.\frac{41}{7}\times\frac{1}{7}=$$

$$12.\frac{44}{10}\times\frac{28}{10}=$$

$$16.\frac{27}{4}\times\frac{49}{5}=$$

$$1.\frac{21}{5}\times\frac{42}{4}=$$

$$5.\frac{33}{7}\times\frac{17}{7}=$$

$$2.\frac{26}{4}\times\frac{13}{8}=$$

$$6.\frac{35}{10} imes \frac{39}{7} =$$

$$3.\frac{11}{4}\times\frac{43}{2}=$$

$$7.\frac{3}{9}\times\frac{39}{5}=$$

$$4.\frac{37}{2}\times\frac{41}{10}=$$

$$8.\frac{19}{6} \times \frac{19}{6} =$$

$$9.\frac{16}{4}\times\frac{25}{3}=$$

$$13.\frac{7}{2}\times\frac{1}{3}=$$

$$10.\frac{3}{6}\times\frac{1}{8}=$$

$$14.\frac{1}{5} \times \frac{16}{5} =$$

$$11.\frac{49}{5} \times \frac{19}{7} =$$

$$15.\frac{19}{5} imes \frac{38}{8} =$$

$$12.\frac{32}{3}\times\frac{5}{6}=$$

$$16.\frac{10}{8} imes \frac{20}{9} =$$

$$1.\frac{18}{29}\times\frac{2}{46}=$$

$$5.\frac{45}{41}\times\frac{17}{5}=$$

$$2.\frac{18}{48}\times\frac{3}{27}=$$

$$6.\frac{48}{50} imes \frac{34}{24} =$$

$$3.\frac{44}{9} \times \frac{32}{29} =$$

$$7.\frac{23}{30} imes \frac{29}{13} =$$

$$4.\frac{30}{38}\times\frac{9}{23}=$$

$$8.rac{19}{45} imesrac{37}{36}=$$

$$9.\frac{26}{6}\times\frac{17}{7}=$$

$$13.rac{17}{20} imesrac{1}{14}=$$

$$10.\frac{18}{30}\times\frac{27}{20}=$$

$$14.\frac{35}{10} imes \frac{28}{19} =$$

$$11.rac{44}{27} imesrac{2}{14}=$$

$$15.\frac{26}{22}\times\frac{13}{33}=$$

$$12.\frac{11}{49} \times \frac{46}{3} =$$

$$16.\frac{17}{24} \times \frac{2}{12} =$$

$$1.rac{24}{32} imesrac{35}{49}=$$

$$5.rac{10}{50} imesrac{17}{6}=$$

$$2.\frac{34}{4}\times\frac{16}{45}=$$

$$6.rac{24}{25} imesrac{20}{45}=$$

$$3.rac{36}{24} imesrac{46}{39}=$$

$$7.rac{44}{24} imesrac{24}{45}=$$

$$4.\frac{1}{28}\times\frac{28}{34}=$$

$$8.\frac{42}{27} imes \frac{23}{38} =$$

$$9.rac{20}{26} imesrac{33}{30}=$$

$$13.rac{16}{40} imesrac{27}{12}=$$

$$10.\frac{39}{48} \times \frac{27}{28} =$$

$$14.\frac{5}{15}\times\frac{28}{24}=$$

$$11.\frac{22}{7} imes \frac{35}{12} =$$

$$15.\frac{22}{33} imes \frac{1}{10} =$$

$$12.\frac{18}{38} \times \frac{43}{3} =$$

$$16.\frac{22}{18} imes \frac{15}{8} =$$

$$1.rac{15}{100} imesrac{47}{37}=$$

$$5.rac{72}{80} imesrac{95}{89}=$$

$$2.rac{93}{71} imesrac{22}{86}=$$

$$6.\frac{44}{91} \times \frac{86}{24} =$$

$$3.\frac{62}{84} imes \frac{28}{44} =$$

$$7.\frac{14}{51} \times \frac{100}{21} =$$

$$4.rac{77}{85} imesrac{61}{16}=$$

$$8.\frac{40}{78} imes \frac{35}{82} =$$

$$9.rac{62}{70} imesrac{65}{76}=$$

$$13.rac{23}{60} imesrac{30}{98}=$$

$$10.\frac{26}{70}\times\frac{65}{76}=$$

$$14.\frac{82}{63} imes \frac{40}{96} =$$

$$11.\frac{39}{21} \times \frac{13}{79} =$$

$$15.\frac{11}{44} \times \frac{86}{78} =$$

$$12.\frac{62}{55}\times\frac{93}{20}=$$

$$16.\frac{17}{13} \times \frac{54}{94} =$$

$$1.\frac{15}{3} \div \frac{2}{8} =$$

$$5.\frac{1}{8} \div \frac{3}{7} =$$

$$2.\frac{3}{9} \div \frac{6}{5} =$$

$$6.\frac{4}{5} \div \frac{3}{9} =$$

$$3.\frac{2}{3} \div \frac{10}{3} =$$

$$7.\frac{6}{9} \div \frac{1}{6} =$$

$$4.\frac{1}{3} \div \frac{4}{8} =$$

$$8.\frac{7}{3} \div \frac{3}{10} =$$

$$9.\frac{1}{3} \div \frac{8}{6} =$$

$$13.\frac{1}{5} \div \frac{8}{10} =$$

$$10.\frac{4}{8} \div \frac{1}{4} =$$

$$14.\frac{6}{5} \div \frac{1}{8} =$$

$$11.\frac{10}{8} \div \frac{3}{10} =$$

$$15.\frac{4}{7} \div \frac{4}{6} =$$

$$12.\frac{1}{4} \div \frac{2}{6} =$$

$$16.\frac{8}{6} \div \frac{1}{3} =$$

$$1.\frac{9}{2}\div\frac{5}{4}=$$

$$5.\frac{3}{7} \div \frac{3}{10} =$$

$$2.\frac{8}{5} \div \frac{9}{4} =$$

$$6.\frac{8}{7} \div \frac{6}{9} =$$

$$3.\frac{6}{7} \div \frac{6}{9} =$$

$$7.\frac{4}{7} \div \frac{8}{10} =$$

$$4.\frac{4}{10} \div \frac{5}{6} =$$

$$8.\frac{7}{5} \div \frac{5}{10} =$$

$$9.\frac{7}{9} \div \frac{8}{3} =$$

$$13.\frac{9}{6} \div \frac{2}{3} =$$

$$10.\frac{1}{8} \div \frac{3}{7} =$$

$$14.\frac{5}{6} \div \frac{1}{10} =$$

$$11.\frac{9}{10} \div \frac{10}{6} =$$

$$15.\frac{1}{5} \div \frac{7}{10} =$$

$$12.\frac{7}{2} \div \frac{9}{5} =$$

$$16.\frac{2}{4} \div \frac{2}{10} =$$

$$1.\frac{3}{4} \div \frac{5}{6} =$$

$$5.\frac{1}{2} \div \frac{9}{5} =$$

$$2.\frac{8}{6} \div \frac{2}{4} =$$

$$6.\frac{6}{7} \div \frac{6}{10} =$$

$$3.\frac{7}{5} \div \frac{3}{2} =$$

$$7.\frac{10}{8} \div \frac{8}{9} =$$

$$4.\frac{7}{9} \div \frac{7}{10} =$$

$$8.\frac{9}{5} \div \frac{10}{4} =$$

$$9.\frac{4}{6} \div \frac{10}{9} =$$

$$13.\frac{3}{10} \div \frac{5}{9} =$$

$$10.\frac{9}{7} \div \frac{7}{6} =$$

$$14.\frac{10}{4} \div \frac{8}{7} =$$

$$11.\frac{3}{6} \div \frac{3}{5} =$$

$$15.\frac{9}{4} \div \frac{3}{8} =$$

$$12.\frac{10}{4} \div \frac{4}{3} =$$

$$16.\frac{5}{10} \div \frac{9}{6} =$$

$$1.\frac{14}{11} \div \frac{21}{4} =$$

$$5.\frac{34}{5} \div \frac{47}{5} =$$

$$2.\frac{38}{3} \div \frac{23}{6} =$$

$$6.\frac{14}{3} \div \frac{42}{8} =$$

$$3.\frac{31}{9} \div \frac{34}{8} =$$

$$7.\frac{47}{6} \div \frac{49}{9} =$$

$$4.\frac{21}{12} \div \frac{43}{5} =$$

$$8.\frac{50}{2} \div \frac{39}{5} =$$

$$9.\frac{18}{12} \div \frac{40}{3} =$$

$$13.\frac{13}{12} \div \frac{3}{10} =$$

$$10.\frac{5}{3} \div \frac{3}{4} =$$

$$14.\frac{33}{8} \div \frac{21}{6} =$$

$$11.\frac{27}{10} \div \frac{14}{5} =$$

$$15.\frac{31}{5} \div \frac{18}{5} =$$

$$12.\frac{35}{3} \div \frac{14}{4} =$$

$$16.\frac{3}{12} \div \frac{26}{5} =$$

$$1.\frac{31}{8} \div \frac{1}{4} =$$

$$5.\frac{5}{4} \div \frac{17}{7} =$$

$$2.\frac{39}{9} \div \frac{31}{2} =$$

$$6.\frac{47}{4} \div \frac{27}{8} =$$

$$3.\frac{21}{2} \div \frac{26}{9} =$$

$$7.\frac{22}{12} \div \frac{10}{9} =$$

$$4.\frac{27}{8} \div \frac{7}{3} =$$

$$8.\frac{31}{12} \div \frac{34}{10} =$$

$$9.\frac{50}{3} \div \frac{5}{4} =$$

$$13.\frac{31}{10} \div \frac{10}{7} =$$

$$10.\frac{20}{11} \div \frac{47}{3} =$$

$$14.\frac{22}{3} \div \frac{38}{4} =$$

$$11.\frac{30}{11} \div \frac{2}{6} =$$

$$15.\frac{21}{10} \div \frac{33}{7} =$$

$$12.\frac{43}{6} \div \frac{41}{6} =$$

$$16.\frac{12}{8} \div \frac{14}{10} =$$

$$1.\frac{19}{9} \div \frac{47}{6} =$$

$$5.\frac{21}{7} \div \frac{22}{5} =$$

$$2.\frac{8}{10} \div \frac{27}{8} =$$

$$6.\frac{25}{11} \div \frac{27}{2} =$$

$$3.\frac{21}{5} \div \frac{2}{10} =$$

$$7.\frac{18}{11} \div \frac{35}{10} =$$

$$4.\frac{15}{12} \div \frac{2}{3} =$$

$$8.\frac{17}{12} \div \frac{3}{8} =$$

$$9.\frac{28}{6} \div \frac{26}{9} =$$

$$13.\frac{11}{5} \div \frac{38}{4} =$$

$$10.\frac{31}{12} \div \frac{42}{9} =$$

$$14.\frac{4}{11} \div \frac{4}{5} =$$

$$11.\frac{16}{6} \div \frac{37}{5} =$$

$$15.\frac{44}{6} \div \frac{18}{4} =$$

$$12.\frac{29}{12} \div \frac{43}{5} =$$

$$16.\frac{18}{10} \div \frac{32}{7} =$$

$$1.\frac{7}{5} \div \frac{11}{39} =$$

$$5.\frac{9}{22} \div \frac{6}{32} =$$

$$2.\frac{17}{24} \div \frac{24}{49} =$$

$$6.\frac{45}{14} \div \frac{47}{7} =$$

$$3.\frac{44}{14} \div \frac{1}{46} =$$

$$7.\frac{21}{50} \div \frac{10}{27} =$$

$$4.\frac{15}{10} \div \frac{41}{20} =$$

$$8.\frac{15}{10} \div \frac{29}{6} =$$

$$9.\frac{2}{18} \div \frac{13}{24} =$$

$$13.\frac{33}{48} \div \frac{1}{2} =$$

$$10.\frac{23}{9} \div \frac{50}{33} =$$

$$14.\frac{6}{33} \div \frac{1}{12} =$$

$$11.\frac{45}{29} \div \frac{49}{35} =$$

$$15.\frac{41}{29} \div \frac{19}{6} =$$

$$12.\frac{10}{50} \div \frac{32}{20} =$$

$$16.\frac{41}{33} \div \frac{21}{20} =$$

$$1.\frac{39}{28} \div \frac{31}{12} =$$

$$5.\frac{19}{20} \div \frac{49}{26} =$$

$$2.\frac{12}{45} \div \frac{41}{33} =$$

$$6.\frac{22}{45} \div \frac{46}{39} =$$

$$3.\frac{46}{12} \div \frac{6}{49} =$$

$$7.\frac{28}{34} \div \frac{33}{35} =$$

$$4.\frac{23}{35} \div \frac{18}{20} =$$

$$8.\frac{34}{6} \div \frac{9}{16} =$$

$$9.\frac{33}{15} \div \frac{28}{18} =$$

$$13.\frac{11}{36} \div \frac{15}{34} =$$

$$10.\frac{37}{46} \div \frac{49}{32} =$$

$$14.\frac{4}{49} \div \frac{19}{43} =$$

$$11.\frac{45}{4} \div \frac{40}{39} =$$

$$15.\frac{39}{36} \div \frac{9}{17} =$$

$$12.\frac{15}{25} \div \frac{50}{43} =$$

$$16.\frac{20}{40} \div \frac{49}{21} =$$

$$1.\frac{14}{49} \div \frac{8}{22} =$$

$$5.\frac{7}{20} \div \frac{6}{41} =$$

$$2.\frac{19}{18} \div \frac{35}{23} =$$

$$6.\frac{38}{40} \div \frac{28}{12} =$$

$$3.\frac{17}{30} \div \frac{35}{30} =$$

$$7.\frac{5}{20} \div \frac{12}{6} =$$

$$4.\frac{22}{3} \div \frac{41}{3} =$$

$$8.\frac{16}{23} \div \frac{10}{26} =$$

$$9.\frac{27}{4} \div \frac{16}{34} =$$

$$13.\frac{17}{27} \div \frac{2}{42} =$$

$$10.\frac{36}{14} \div \frac{22}{8} =$$

$$14.\frac{16}{26} \div \frac{45}{47} =$$

$$11.\frac{6}{23} \div \frac{45}{24} =$$

$$15.\frac{11}{13} \div \frac{14}{16} =$$

$$12.\frac{42}{26} \div \frac{15}{39} =$$

$$16.\frac{14}{44} \div \frac{49}{21} =$$

$$1.\frac{20}{56} \div \frac{13}{40} =$$

$$5.\frac{40}{82} \div \frac{80}{61} =$$

$$2.\frac{65}{97} \div \frac{21}{85} =$$

$$6.\frac{79}{27} \div \frac{64}{79} =$$

$$3.\frac{53}{47} \div \frac{49}{70} =$$

$$7.\frac{28}{47} \div \frac{52}{50} =$$

$$4.\frac{87}{97} \div \frac{76}{44} =$$

$$8.\frac{23}{18} \div \frac{26}{25} =$$

$$9.\frac{71}{48} \div \frac{73}{68} =$$

$$13.\frac{13}{86} \div \frac{30}{19} =$$

$$10.\frac{86}{51} \div \frac{26}{85} =$$

$$14.\frac{49}{36} \div \frac{20}{39} =$$

$$11.\frac{20}{80} \div \frac{100}{61} =$$

$$15.\frac{93}{28} \div \frac{34}{27} =$$

$$12.\frac{17}{67} \div \frac{10}{54} =$$

$$16.\frac{62}{13} \div \frac{79}{90} =$$

CHAPTER 10 - ICAS

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