BETTER VALUE

For each of the following questions, demonstrate all your working.

1) A cinema offers two ticket types:
Standard: £7 per ticket
Family bundle: 4 tickets for £25
Which option is the better value per person?

$25 \div 4 = £6.25$

The family bundle is the better value

2) A shop sells pencils:
1 pencil for 60p
Pack of 5 pencils for £2.50
Which option is the better deal?

$2.50 \div 5 = £\mathbf{0.50}$

The pack of 5 is the better deal

3) A fairground offers the following ride packages:
£6 for 2 rides
£10 for 4 rides
Which option gives the better value per ride?

$6 \div 2 = £3$
$10 \div 4 = £2.50$

£10 for 4 rides

4) A phone plan offers 6 GB for £10.75, or 10 GB for £18. Which plan gives the better value per GB?

$10.75 \div 6 = £1.7916 \ldots \ per\ GB$

$18 \div 10 = £1.80\ per\ GB$

The 6 GB plan is the better value

5) A bottle of water costs £1.20 for 1.5 litres. Another bottle costs £0.79 for 1 litre. Which is the better value?

$1.20 \div 1.5 = £0.80\ per\ litre$

The 1 litre bottle is the better value

6) A 500 g pack of pasta costs £0.80.
A 1 kg pack costs £1.60.
Which is the better value?

$500\ g = 0.5\ kg$
$0.80 \div 0.5 = £1.60$

Neither, they both cost the same

7) Two packs of kitchen roll are on sale in a supermarket.
Pack of 4 for £1.40
Pack of 10 for £3.60
Which pack offers the better value for the money?

$1.40 \div 4 = £0.35$
$3.60 \div 10 = £0.36$

The pack of 4 is the better value

8) A pack of 6 cans of fizzy drink costs £2.70.
A pack of 12 cans of fizzy drink costs £5.00.
Which pack offers the better value per can?

$2.70 \div 6 = £0.45$
$5 \div 12 = 0.416 \ldots = £0.42$

The pack of 12 is the better value per can

9) A travel bottle of shampoo contains 150 ml and costs £1.80. A family-size bottle contains 600 ml and costs £5.40.
Which size is the better value?

$1.80 \times 4 = £7.20\ for\ 600\ ml$

The family-size is the better value

10) A 2 litre bottle of juice is £1.80.
A 750 ml bottle of juice is £0.75.
Which size is the better value?

$2\ litres = 2000\ ml$
$1.80 \div 20 = £0.09\ per\ 100\ ml$

$0.75 \div 7.5 = £0.10\ per\ 100\ ml$

The 2 litre bottle is the better value

11) A shop has two offers on pens:

Offer 1: Buy 2 for £1.28

Offer 2: £0.95 each
Buy 2 get 1 free

Which offer is the better value per pen?

$1.28 \div 2 = £0.64\ per\ pen$

$0.95 \times 2 = £1.90$
$1.90 \div 3 = £0.63\ per\ pen\ (2\ dp)$

Offer 2 is the better value per pen

12) A shop sells chewing gum in three different pack sizes:

Pack A: 6 pieces for £1.20
Pack B: 10 pieces for £1.70
Pack C: 18 pieces for £3.24

Which pack offers the best value?

$Pack\ A = 1.20 \div 6 = £0.20\ per\ piece$

$Pack\ B = 1.70 \div 10 = £0.17\ per\ piece$

$Pack\ C = 3.24 \div 18 = £0.18\ per\ piece$

Pack B is the best value

13) A phone company offers two internet plans.
Plan A: £27 per month for 100 GB
Plan B: £35 per month for unlimited data

How much would you have to use in GB for Plan B to be the better value?

$27 \div 100 = £0.27\ per\ GB$

£35 per month
$35 \div x = 0.27$

$35 = 0.27x$

$x = \frac{35}{0.27} = 129.629\ldots$

130 GB

14) A hotel charges £80 per night, or a special offer rate of £210 for 3 nights (with a free breakfast worth £10 per day included).

Is the special offer better than paying per night with breakfast separately? If so, how much is saved through the special offer?

Per night with breakfast:
$80 \times 3 = £240$
$10 \times 3 = £30$
$240 + 30 = £270$

$270 - 210 = £60$

Yes, it is a better offer with a savings of £60