

Name: _____

Exam Style Questions



Reverse Percentages

Corbettmαths

Ensure you have: Pencil, pen, ruler, protractor, pair of compasses and eraser

You may use tracing paper if needed

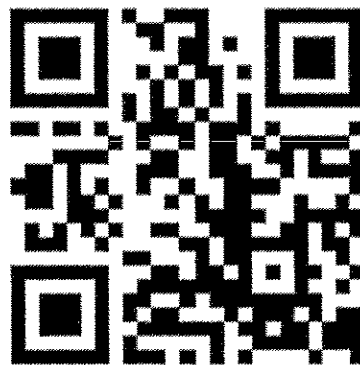
Guidance

1. Read each question carefully before you begin answering it.
2. Don't spend too long on one question.
3. Attempt every question.
4. Check your answers seem right.
5. Always show your workings

Revision for this topic

Secondary

Video 240



1. Patrick invested money into a special savers bank account.
Each year money in the account earns 4% interest.



After one year, the total amount of money in the account was £291.20

How much did Patrick invest?

$$104\% = £291.20$$

$$1\% = 2.8$$

$$100\% = £280$$

$$\begin{array}{r} \text{£ } 280 \\ \hline \end{array} \quad (3)$$

2. Ottawa is the capital city of Canada.
The population of Ottawa is 890,000.
This population is 2.5% of the total population of Canada.



What is the total population of Canada?

$$2.5\% = 890,000$$

$$1\% = 356,000$$

$$100\% = 35,600,000$$

$$\begin{array}{r} 35,600,000 \\ \hline \end{array} \quad (3)$$

3.

A lamp is on sale at £22.05
This is a 10% reduction of the normal price.



What was the price of the lamp before the reduction?

$$\begin{aligned}90\% &= 22.05 \\1\% &= 0.245 \\100\% &= 24.50\end{aligned}$$

$$\begin{array}{r}£ \dots 24.50 \\ \hline (3)\end{array}$$

4.

Jacob buys a watch costing £84
This cost includes VAT at a rate of 20%.



How much is the watch without VAT?

$$\begin{aligned}120\% &= £84 \\1\% &= 0.7 \\100\% &= £70\end{aligned}$$

$$\begin{array}{r}£ \dots 70 \\ \hline (3)\end{array}$$

5.

Jennifer has 54 DVDs.

This number of DVDs is 80% more than the number she had last month.



How many DVDs did Jennifer have last month?

$$180\% = 54$$

$$1\% = 0.3$$

$$100\% = 30$$

30

(3)

6.

Lauren is given a 12% pay rise.

Her new salary is £24,080



What was Lauren's salary before the pay rise?

$$112\% = 24080$$

$$1\% = 215$$

$$100\% = 21500$$

£ 21500

(3)

7. A limited edition bag of flour contains 25% more than the standard bag.
The limited edition bag contains 650g of flour.



How much flour is in the standard bag?

$$125\% = 650$$

$$1\% = 5.2$$

$$100\% = 520$$

$$\begin{array}{r} 520 \\ \hline \end{array} \text{g} \\ (3)$$

8. A fish tank sprung a leak and loses 45% of its water.
There is now 363 litres of water in the fish tank.



How much water was in the fish tank before the leak?

$$55\% = 363$$

$$1\% = 6.6$$

$$100\% = 660$$

$$\begin{array}{r} 660 \\ \hline \end{array} \text{l} \\ (3)$$

9. Mrs Reed buys a car costing £11760
This cost includes VAT at a rate of 20%.



How much is the VAT?

$$120\% = 11760$$

$$1\% = 98$$

$$100\% = 9800$$

$$11760 - 9800$$

£ 1960
.....
(3)

10. In a sale the price of a sofa is reduced by 70%.
The sale price is £255



Work out the price before the sale.

$$30\% = 255$$

$$1\% = 8.5$$

$$100\% = 850$$

£ 850
.....
(3)

11. There are 6000 people at an ice hockey match.
The announcer says this is exactly 40% more people than the previous match.



Explain why the announcer is incorrect.

$$140\% = 6000$$

$$1\% = 42.857\dots$$

whole number.

$$100\% = 4285.71\dots$$

Since this is not an integer,
the announcer must be wrong

(4)