

Reverse Percentages

Mark Scheme

Level	GCSE
Subject	Maths
Exam Board	Edexcel GCSE
Topic	Reverse Percentages
Grade Level	Grade 5
Booklet	Mark Scheme

Time Allowed: 28 minutes

Score: /23

Percentage: /100

Grade Boundaries:

1. In a sale, normal prices are reduced by 20%.

SALE
20% OFF

Andrew bought a saddle for his horse in the sale.
The sale price of the saddle was £220.

Calculate the normal price of the saddle.

$$\begin{array}{rcl} 220 & = & 80\% \\ \div 80 & & \div 80 \end{array}$$

$$\begin{array}{rcl} 2.75 & = & 1\% \\ \times 100 & & \times 100 \end{array}$$

$$£275 = 100\%$$

£.....275.....

(Total 3 marks)

2.



Jacob answered 80% of the questions in a test correctly.
He answered 32 of the questions correctly.

Work out the total number of questions in the test.

$$80\% = 32$$

$$\div 8 \qquad \div 8$$

$$10\% = 4$$

$$\times 10 \qquad \times 10$$

$$100\% = 40$$

40

.....
(Total 3 marks)

3. In a sale, normal prices are reduced by 15%.
The sale price of a CD player is £102

Work out the normal price of the CD player.

$$\begin{aligned}£102 &= 85\% \\ \div 85 &\quad \div 85 \\£120 &= 100\%\end{aligned}$$

£.....120.....

(Total 3 marks)

4. A garage sells cars.
It offers a discount of 20% off the normal price for cash.

Dave pays £5200 cash for a car.

Calculate the normal price of the car.

$$\begin{aligned}£5200 &= 80\% \\ \div 80 &\quad \div 80 \\£6500 &= 100\%\end{aligned}$$

£.....6500.....

(Total 3 marks)

5. In a sale, normal prices are reduced by 25%.
The sale price of a saw is £12.75

Calculate the normal price of the saw.

$$12.75 \div 0.75$$

£17.....

(Total 3 marks)

6. In a sale, normal prices are reduced by 12%.
The sale price of a DVD player is £242.

Work out the normal price of the DVD player.

$$242 \div 0.88$$

£275.....

(Total 3 marks)

7. The price of all rail season tickets to London increased by 4%.

- (a) The price of a rail season ticket from Cambridge to London increased by £121.60

Work out the price before this increase.

$$\begin{array}{rcl} £121.60 & = & 4\% \\ \times 25 & & \times 25 \end{array}$$

£3040.....

(2)

- (b) After the increase, the price of a rail season ticket from Brighton to London was £2828.80

Work out the price before this increase.

$$£2828.80 = 104\%$$

$$2828.80 \div 1.04$$

£2720.....

(3)

(Total 5 marks)