Edexcel GCSE
Mathematics (Linear) – 1MA0

REVERSE PERCENTAGES

Materials required for examination
Ruler graduated in centimetres and
millimetres, protractor, compasses,
pen, HB pencil, eraser.
Tracing paper may be used.

Items included with question papers
Nil

Instructions

Use black ink or ball-point pen.
Fill in the boxes at the top of this page with your name, centre number and candidate number.
Answer all questions.
Answer the questions in the spaces provided – there may be more space than you need.
Calculators may be used.

Information

The marks for each question are shown in brackets – use this as a guide as to how much time to spend on **each** question.
Questions labelled with an **asterisk** (*) are ones where the quality of your written communication will be assessed – you should take particular care on these questions with your spelling, punctuation and grammar, as well as the clarity of expression.

Advice

Read each question carefully before you start to answer it.
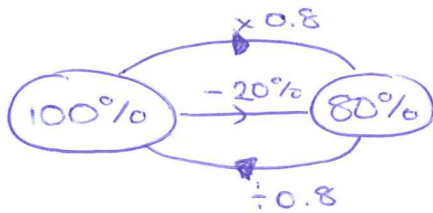Keep an eye on the time.
Try to answer every question.
Check your answers if you have time at the end.

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.

$$\times 0.8$$

$100\% \xrightarrow{-20\%} 80\%$

$$\div 0.8$$

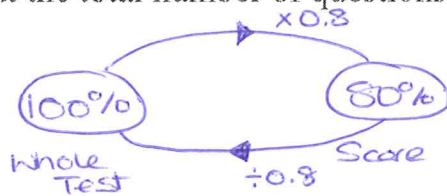£220 ÷ 0.8 = £275

£...275...

(Total 3 marks)

2.

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

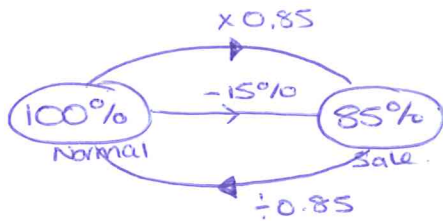Work out the total number of questions in the test.

× 0.8

(100%)   (80%)

Whole   Score
Test   ÷ 0.8

32 ÷ 0.8 = 40 questions

40 questions

(Total 3 marks)

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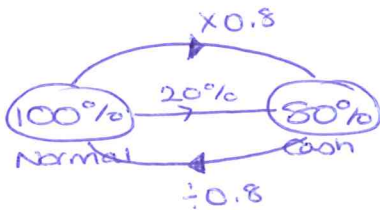
    Work out the normal price of the CD player.

    × 0.85

    100%   –15%   85%
    Normal   Sale

    ÷ 0.85

    £102 ÷ 0.85 = £120

    £ 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.
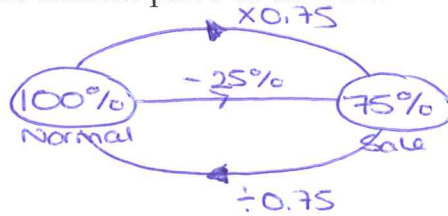
    Calculate the normal price of the car.

    × 0.8

    100%   20%   80%
    Normal   Cash

    ÷ 0.8

    £5200 ÷ 0.8 = £6500

    £ 6500

    (Total 3 marks)

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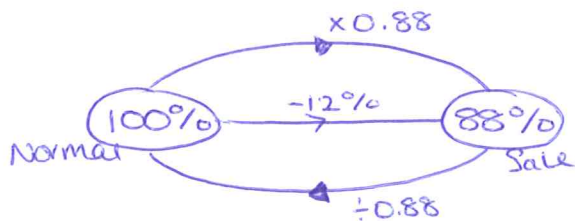
Calculate the normal price of the saw.

$$\times 0.75$$

100% Normal $\xrightarrow{-25\%}$ 75% Sale

$$\div 0.75$$

£12.75 ÷ 0.75 = £17

£ ..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.

$$\times 0.88$$

100% Normal $\xrightarrow{-12\%}$ 88% Sale

$$\div 0.88$$

£242 ÷ 0.88 = £275

£ ..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.

Original × 0.04 = 121.60

Original = 121.60 ÷ 0.04
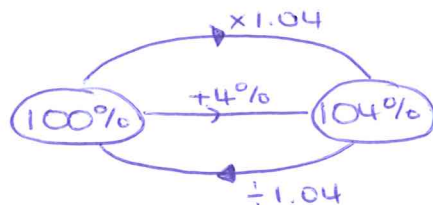= £3040

£ ...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 ÷ 1.04 = £2720

£ ...2720...

(3)
(Total 5 marks)