9 (a) Write 24.8635 correct to 3 significant figures.

.....

(1)

(b) Find the value of $\sqrt{50.41}$

.....

(1)

(c) Change $\frac{7}{8}$ to a percentage.

..... %

(2)

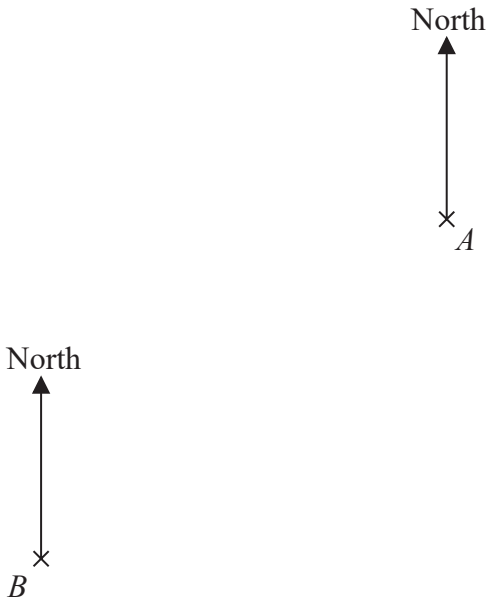
(Total for Question 9 is 4 marks)

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

10 The accurate scale drawing shows the positions of two mobile phone masts, A and B.



The scale is 1 cm to 2.5 km.

(a) Find the bearing of A from B.

..... °

(1)

(b) Work out the actual distance, in km, between A and B.

..... km

(2)

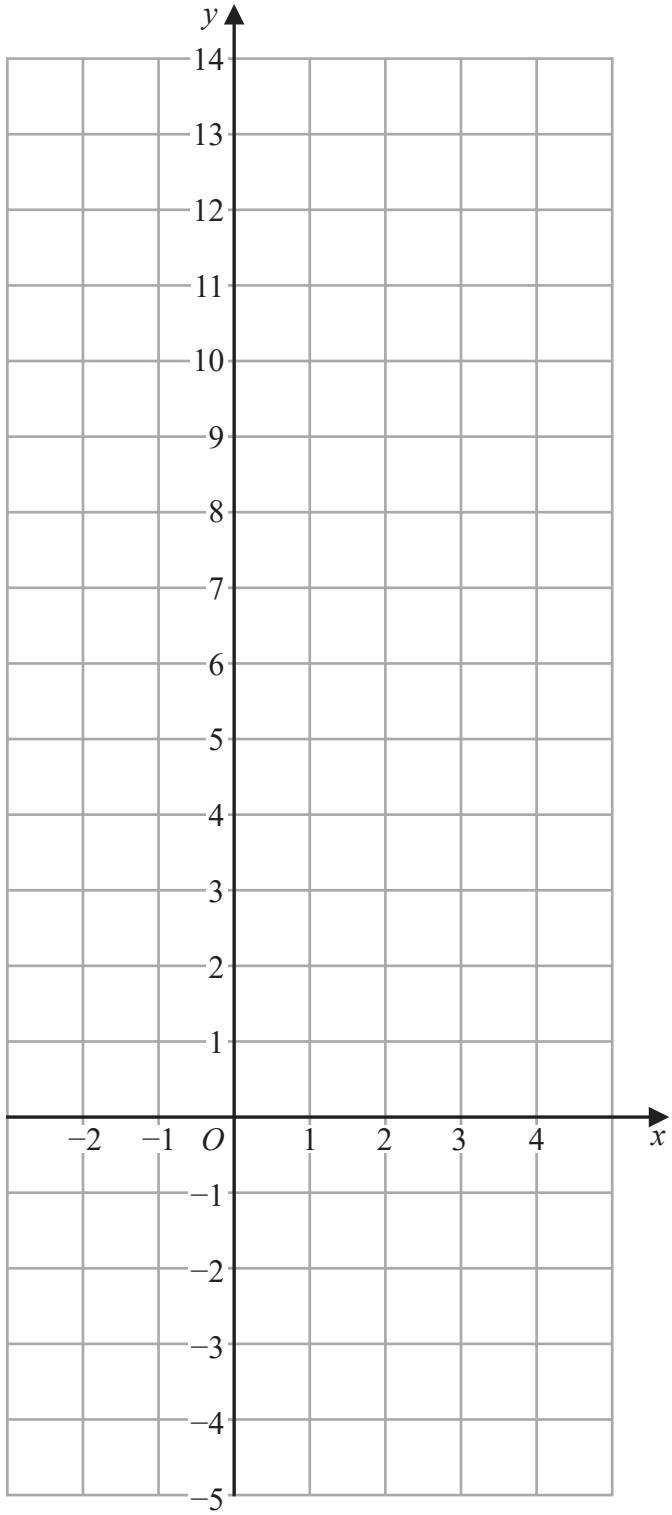
A third mobile phone mast, C, is put up.
C will be on a bearing of 115° from A.
C will be 20 km from B.

(c) Find the position of C.
Mark this point with a cross (×) and label it C.

(3)

(Total for Question 10 is 6 marks)

11 On the grid, draw the graph of $y = 3x + 2$ for values of x from -2 to 4



(Total for Question 11 is 3 marks)

12 Greg bought 36 oranges.
He paid 50p for each orange.

Greg sold $\frac{1}{2}$ of the oranges for 60p each.

He sold $\frac{1}{3}$ of the oranges for 40p each.

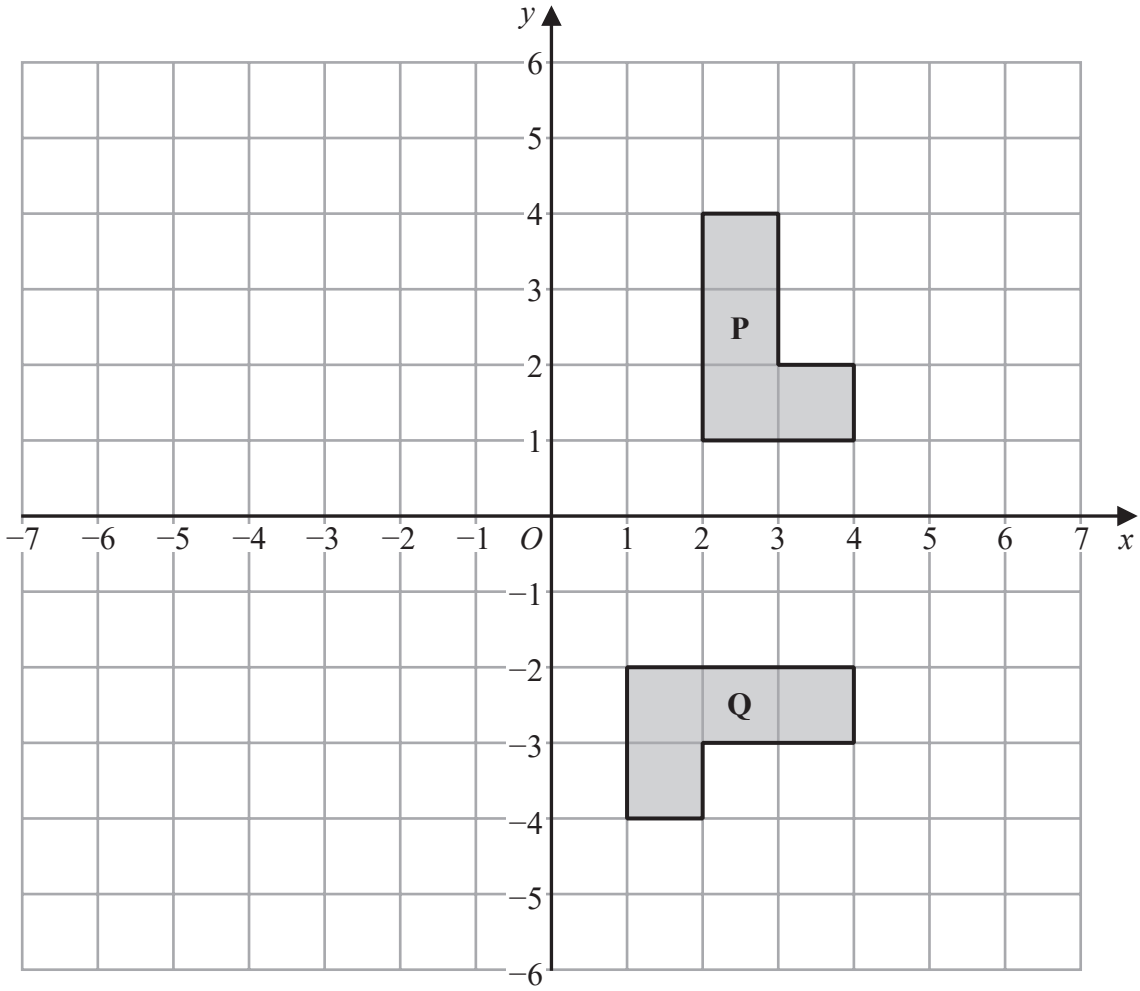
He sold the remainder of the oranges for 25p each.

Work out Greg's percentage loss.

.....%

(Total for Question 12 is 5 marks)

13



(a) Describe fully the single transformation that maps shape **P** onto shape **Q**.

.....

.....

(3)

(b) On the grid, reflect shape **P** in the line $x = -1$
Label the new shape **R**.

(2)

(Total for Question 13 is 5 marks)

14 Brendon, Asha and Julie share some money in the ratios 3 : 2 : 6
The **total** amount of money that Asha and Julie receive is $36

Work out the amount of money that Brendon receives.

$.....

(Total for Question 14 is 3 marks)

15 Show that $3\frac{1}{5} \times 2\frac{5}{8} = 8\frac{2}{5}$

(Total for Question 15 is 3 marks)

16 (a) Make a the subject of $d = g + 2ac$

.....

(2)

(b) Factorise fully $9ef - 12f$

.....

(2)

(c) Expand and simplify $(x + 2)(x - 5)$

.....

(2)

(d) Simplify fully $\dfrac{n^4 \times n^7}{n^5}$

.....

(2)

(Total for Question 16 is 8 marks)