

Bronze Level

Question Paper 14

Level	IGCSE
Subject	Maths
Exam Board	Edexcel
Difficulty Level	Bronze
Booklet	Question Paper 14

Time Allowed: 58 minutes

Score: /48

Percentage: /100

Grade Boundaries:

9	8	7	6	5	4	3	2	1
>95%	85%	75%	65%	55%	45%	35%	25%	<25%

- 1 The pie chart gives information about the amounts spent by a gas company in one year.

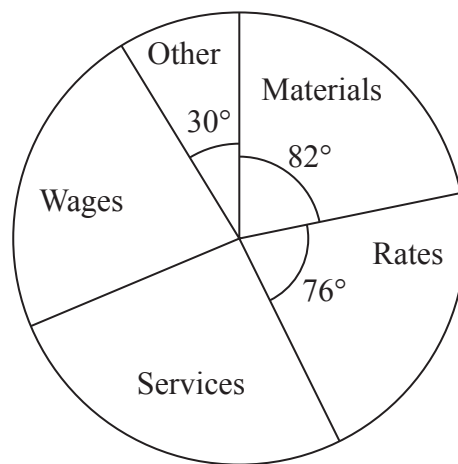


Diagram **NOT** accurately drawn

The amount spent on materials was 225.5 million euros.

The amount spent on services was the same as the amount spent on wages.

Work out the amount spent on services.

..... million euros

(Total for Question 1 is 3 marks)

2 The first four terms of an arithmetic sequence are

5 9 13 17

(a) Write down an expression, in terms of n , for the n th term.

.....
(2)

(b) Write down an expression, in terms of n , for the $(n + 1)$ th term.

.....
(1)

(Total for Question 2 is 3 marks)

3 On 1st May 2012, the cost of 5.7 grams of gold was 15 960 rupees.

(a) Work out the cost, in rupees, of 4.6 grams of gold on the same day.

..... rupees
(2)

The cost of gold decreased by 7.5% from 1st May 2012 to 1st May 2013

(b) Work out the cost, in rupees, of 5.7 grams of gold on 1st May 2013

..... rupees
(3)

(Total for Question 3 is 5 marks)

- 4 A steam engine for pulling trains has wheels of diameter 1.5 metres.
- (a) Calculate the circumference of a wheel.
Give your answer correct to 3 significant figures.



..... m
(2)

The steam engine travels 1000 metres along a test track.

- (b) Work out the number of complete turns of a wheel.

.....
(2)

(Total for Question 4 is 4 marks)

5 John changes £450 to euros.

The exchange rate is £1 = 1.16 euros.

(a) Change £450 to euros.

..... euros
(2)

When in Amsterdam, John uses his credit card to pay for a ring costing 850 euros.

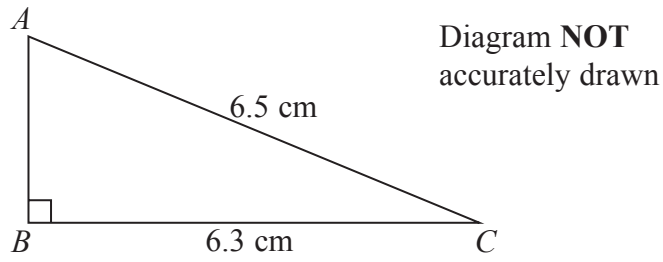
He has to pay a bank charge of £3.50 for using his credit card in addition to the cost of the ring.

(b) Work out the total cost, in pounds (£), of the ring and the bank charge.

£
(3)

(Total for Question 5 is 5 marks)

6 Here is a right-angled triangle.



$AC = 6.5$ cm.
 $BC = 6.3$ cm.
Angle $ABC = 90^\circ$

Calculate the length of AB .

..... cm

(Total for Question 6 is 3 marks)

7 (a) Simplify $5y \times 4y^2$

.....
(2)

(b) Simplify $\frac{15e^2f}{25ef^3}$

.....
(2)

(c) Factorise $6p^2 - 5pq - 6q^2$

.....
(2)

(d) Simplify $(x^{-y})^{-z}$

.....
(1)

(Total for Question 7 is 7 marks)

8 Use your calculator to work out the value of

$$\frac{12.5 \times 4.5}{6.8 + \sqrt{67.24}}$$

.....
(Total for Question 8 is 2 marks)

9 Solve $7x - 2 = 1 - 3x$
Show clear algebraic working.

$x =$

(Total for Question 9 is 3 marks)

10

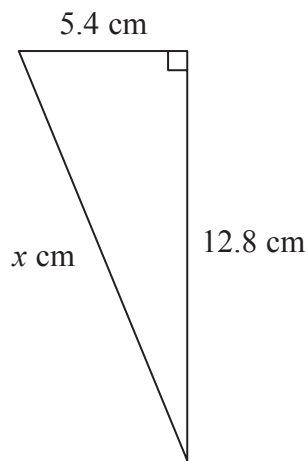


Diagram **NOT**
accurately drawn

Work out the value of x .
Give your answer correct to 3 significant figures.

$x = \dots\dots\dots$

(Total for Question 10 is 3 marks)

11 (a) Factorise $g^2 + 4g$

$\dots\dots\dots$
(2)

(b) Factorise $e^2 - 2e - 24$

$\dots\dots\dots$
(2)

(Total for Question 11 is 4 marks)

12 Solve the simultaneous equations

$$\begin{aligned}8x - 4y &= 7 \\12x - 8y &= 6\end{aligned}$$

Show clear algebraic working.

$$x = \dots\dots\dots$$

$$y = \dots\dots\dots$$

(Total for Question 12 is 3 marks)

13 A bag contains only red bricks and blue bricks.

There is a total of 20 bricks in the bag.

The probability that a brick taken at random from the bag will be red is $\frac{2}{5}$

How many blue bricks are there in the bag?

.....

(Total for Question 13 is 3 marks)