

# Silver Level

## Question Paper 17

Level	IGCSE
Subject	Maths
Exam Board	Edexcel
Difficulty Level	Silver
Booklet	Question Paper 17

**Time Allowed:** 58 minutes

**Score:** /48

**Percentage:** /100

**Grade Boundaries:**

9	8	7	6	5	4	3	2	1
>90%	80%	70%	60%	50%	40%	30%	20%	<20%

1 (a)  $A = 2^2 \times 3 \times 5^2$

$$B = 2^3 \times 5$$

(i) Find the Highest Common Factor (HCF) of  $A$  and  $B$ .

.....

(ii) Find the Lowest Common Multiple (LCM) of  $A$  and  $B$ .

.....

(3)

(b)  $\frac{8^2 \times 8^3}{8^4} = 2^n$

Find the value of  $n$ .

$$n = \text{.....}$$

(2)

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(Total for Question 1 is 5 marks)

- 2 The table shows information about the oil production, in barrels per day, of five countries during one year.

Country	Oil production (barrels per day)
India	$8.97 \times 10^5$
Brazil	$2.63 \times 10^6$
United States	$8.4 \times 10^6$
Russia	$1.09 \times 10^7$
Saudi Arabia	$9.9 \times 10^6$

- (a) Which country had the highest oil production?

.....

(1)

- (b) Calculate the difference between the oil production of Brazil and the oil production of India.  
Give your answer in standard form.

.....barrels per day

(2)

During the same year, the oil production of California was  $6.3 \times 10^5$  barrels per day.

- (c) Work out the oil production of California as a proportion of the oil production of the United States.

.....

(2)

**(Total for Question 2 is 5 marks)**

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3  $ABCD$  is a kite.

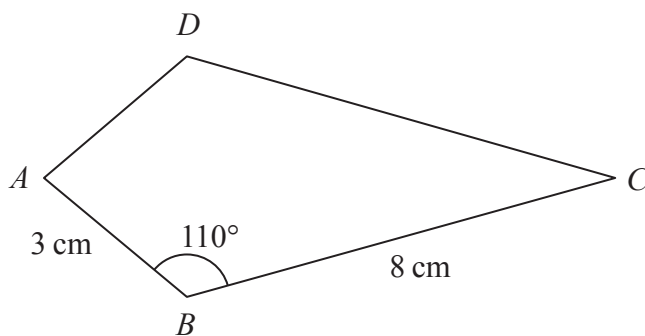


Diagram **NOT** accurately drawn

$AB = 3\text{ cm}$   
 $BC = 8\text{ cm}$   
Angle  $ABC = 110^\circ$

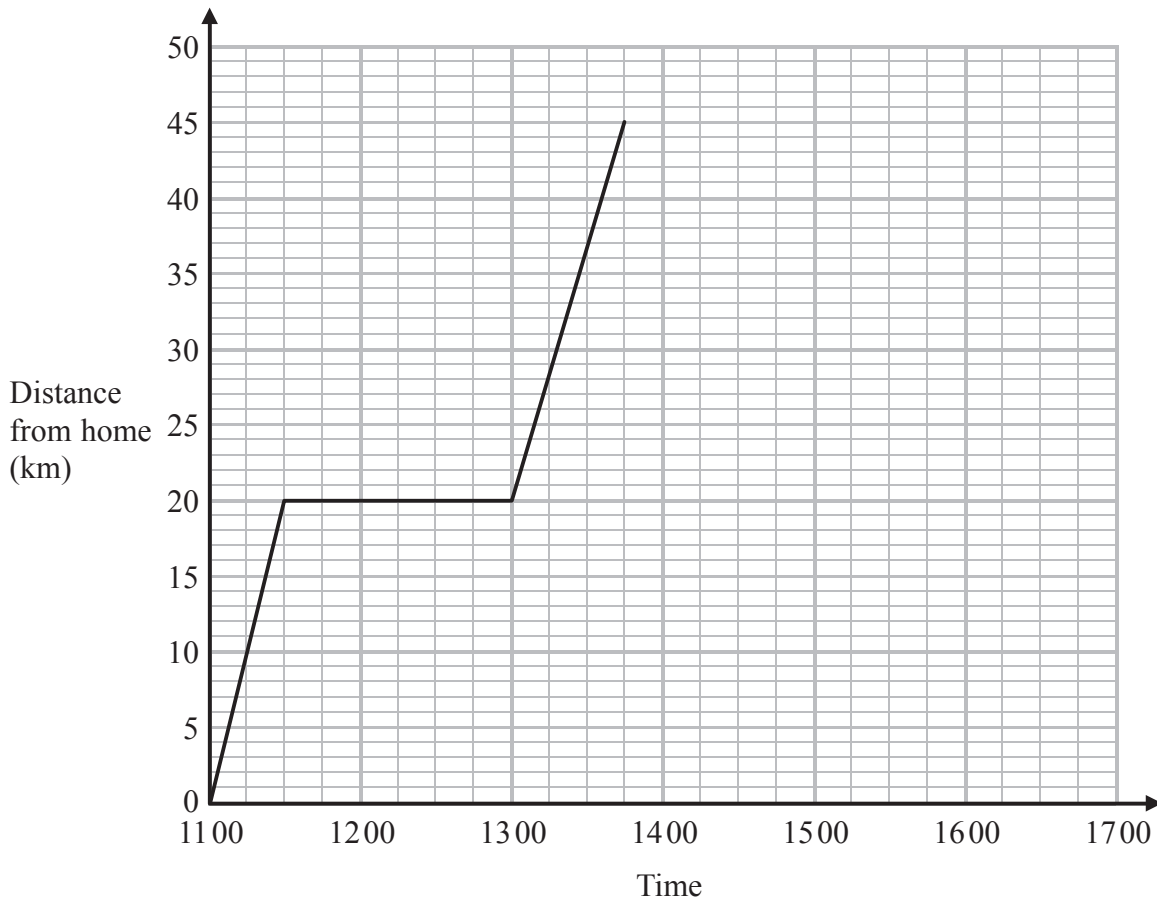
Calculate the area of the kite  $ABCD$ .  
Give your answer correct to 3 significant figures.

.....  $\text{cm}^2$

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(Total for Question 3 is 3 marks)

- 4 Lia left home at 11 00 to drive to a shopping centre. On her way, she stopped at a friend's house. Here is the distance-time graph for her journey to the shopping centre.



- (a) (i) For how many minutes did Lia stay at her friend's house?

..... minutes

- (ii) How far is it from her friend's house to the shopping centre?

..... km  
(2)

Lia stayed at the shopping centre for  $1\frac{1}{2}$  hours.

She then drove back home.

She arrived home at 16 30

- (b) Show all this information on the distance-time graph.

(2)

(Total for Question 4 is 4 marks)

5

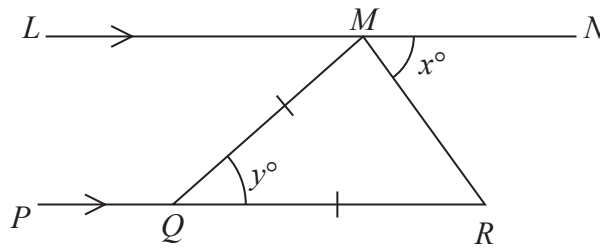


Diagram **NOT** accurately drawn

$LMN$  is parallel to  $PQR$ .

$QM = QR$ .

Angle  $RMN = x^\circ$

Angle  $MQR = y^\circ$

(a) Write down an expression for  $y$  in terms of  $x$ .

$y = \dots\dots\dots$   
(2)

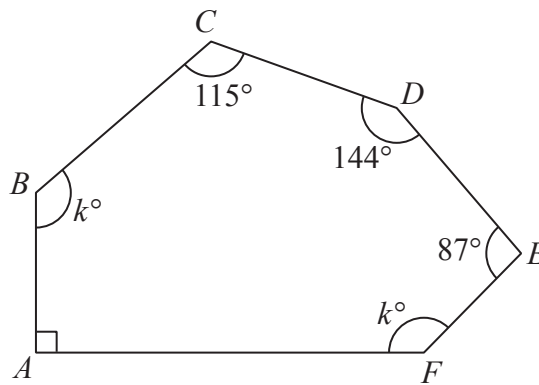


Diagram **NOT** accurately drawn

$ABCDEF$  is a hexagon.

(b) Work out the value of  $k$ .

$k = \dots\dots\dots$   
(4)

(Total for Question 5 is 6 marks)

6 (a) Solve the inequalities  $-5 < x + 4 \leq 3$

.....  
(2)

(b)  $n$  is an integer.

Write down all the values of  $n$  that satisfy  $-3 \leq n < 2$

.....  
(2)

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**(Total for Question 6 is 4 marks)**

7  $x$  is an integer.

The Lowest Common Multiple (LCM) of  $x$  and 12 is 120

The Highest Common Factor (HCF) of  $x$  and 12 is 4

Work out the value of  $x$ .

$x =$  .....

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**(Total for Question 7 is 2 marks)**



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- 8 The value of a boat depreciates by 16% each year.  
At the end of 2012, the value of the boat is £65 000

Work out the value of the boat at the end of 2015

£ .....

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**(Total for Question 8 is 3 marks)**

- 9 Solve  $3x^2 + 2x - 7 = 0$   
Give your solutions correct to 3 significant figures.  
Show your working clearly.

.....

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**(Total for Question 9 is 3 marks)**

10

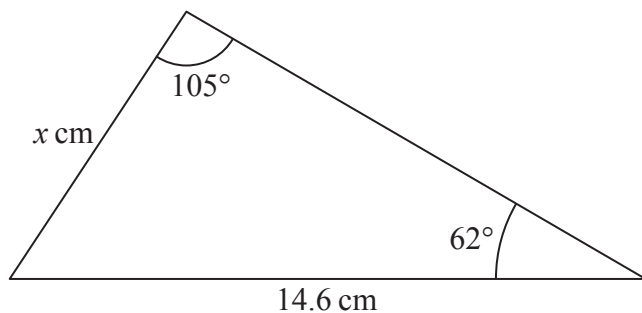


Diagram **NOT** accurately drawn

Work out the value of  $x$ .  
Give your answer correct to 1 decimal place.

$x = \dots\dots\dots$

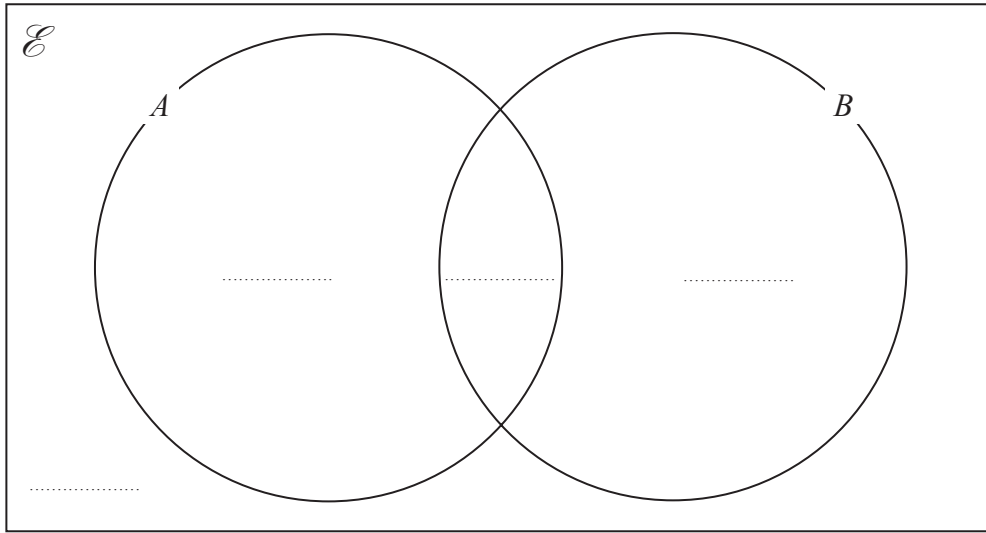
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**(Total for Question 10 is 3 marks)**

11  $A$  and  $B$  are two sets.

$$\begin{aligned}n(\mathcal{E}) &= 36 \\n(B) &= 21 \\n(A \cap B) &= 8 \\n(A') &= 18\end{aligned}$$

(a) Complete the Venn diagram to show the **number of elements** in each region of the Venn diagram.



(3)

(b) Find  $n(A \cup B)$

.....  
(1)

(c) Find  $n(A \cap B')$

.....  
(1)

---

(Total for Question 11 is 5 marks)

**12** Amit invests 15 000 rupees.

At the end of one year, his investment has increased by  $7\frac{1}{2}\%$

(a) Work out the value of Amit’s investment at the end of one year.

..... rupees  
(2)

Priya invests a sum of money at an interest rate of 8% per year.

At the end of one year, the interest she receives is 1800 rupees.

(b) Work out the value of Priya’s investment at the end of one year.

..... rupees  
(3)

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**(Total for Question 12 is 5 marks)**