

**KULLEGĠ SAN BENEDITTU**  
**Boys Secondary School, Kirkop**  
**HALF-YEARLY EXAMINATIONS – FEBRUARY 2012**

FORM 2

**MATHEMATICS**

TIME: 30 mins

**Non Calculator Paper**

Question	1	2	3	4	5	6	7	8	Total
Max. Mark	3	1	5	4	4	2	1	5	25
Mark									

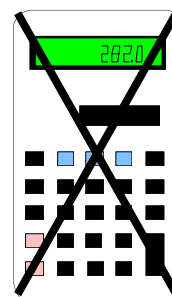
**DO NOT WRITE ABOVE THIS LINE**

**NAME AND SURNAME:** \_\_\_\_\_ **CLASS:** \_\_\_\_\_

**INSTRUCTIONS TO CANDIDATES:**

**Read all the questions carefully before you start answering.**

- Answer all questions.
- This paper carries 25 marks.
- **Calculators, protractors** and other mathematical instruments are **NOT ALLOWED**.
- On your desk you should have nothing except for **pen, pencil, ruler** and the **examination paper**.



1. Work out:

a)  $€6.25 + €12.86$

b)  $€10 - €1.95$

**Answers:** a) \_\_\_\_\_

b) \_\_\_\_\_

(3 marks)

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2. Round 15.24 to 1 decimal place.

**Answer:** \_\_\_\_\_

(1 mark)

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3. a) Fill in:  $\frac{3}{5} = \frac{\square}{20}$

b) Write  $\frac{15}{18}$  in its simplest form.

**Answer:** \_\_\_\_\_

c) Work out:

(i)  $\frac{3}{7} + \frac{2}{7}$

**Answer:** \_\_\_\_\_

(ii)  $\frac{3}{9} - \frac{1}{9}$

**Answer:** \_\_\_\_\_

(iii)  $\frac{1}{4} \times 20$

**Answer:** \_\_\_\_\_

(5 marks)

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4. Find the mean, median, mode and range of the following set of numbers:

9, 2, 5, 2, 3, 6, 8

**Answers:**      Mean = \_\_\_\_\_  
Median = \_\_\_\_\_  
Mode = \_\_\_\_\_  
Range = \_\_\_\_\_  
(4 marks)

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5. Work out:

- a)  $6 \times 1000 =$  \_\_\_\_\_
- b)  $2.56 \times 100 =$  \_\_\_\_\_
- c)  $5300 \div 100 =$  \_\_\_\_\_
- d)  $75.3 \div 10 =$  \_\_\_\_\_

(4 marks)

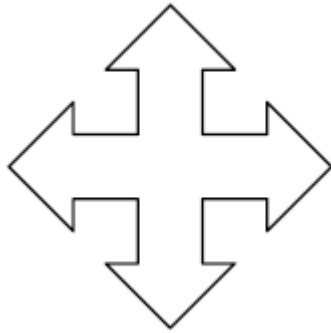
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6. Matthew buys 10 boxes of chocolates each costing €2.50. How much does he spend?

**Answer:** \_\_\_\_\_  
(2 marks)

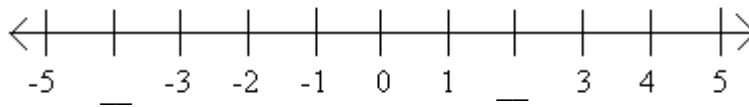
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7. What is the order of rotation symmetry of this shape?



Answer : \_\_\_\_\_  
(1 mark)

8. a) Fill in the missing numbers on the number line.



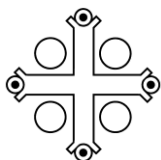
b) Use the number line to work these out.

i)  $5 - 8 =$  \_\_\_\_\_

ii)  $-1 + 4 =$  \_\_\_\_\_

c) The temperature in Milan at midnight was  $-3^{\circ}\text{C}$ . If the temperature **went up** by  $6^{\circ}\text{C}$  by noon, what was the temperature at noon?

Answer : \_\_\_\_\_  
(5 marks)



**KULLEĠĠ SAN BENEDITTU**  
**Boys Secondary School, Kirkop**

**C**

**HALF-YEARLY EXAMINATIONS – FEBRUARY 2012**

**FORM 2**

**MATHEMATICS** Scheme C

**TIME: 1hr 30mins**

**Main Paper**

Question	1	2	3	4	5	6	7	8	9	10	11	12	Main	NC	Global Mark
Max. Mark	7	10	8	6	8	8	6	4	7	3	4	4	75	25	100
Mark															

**DO NOT WRITE ABOVE THIS LINE**

**NAME AND SURNAME:** \_\_\_\_\_ **CLASS:** \_\_\_\_\_

**INSTRUCTIONS TO CANDIDATES:**

**Read all the questions carefully before you start answering.**

- Answer all questions.
- This paper carries 75 marks.
- Calculators and mathematical instruments are allowed but all necessary working must be shown.

1. a) 5368 tickets were sold for a concert. Round this number

i) to the nearest 10 \_\_\_\_\_

ii) to the nearest 1000 \_\_\_\_\_

b) Put in order starting from the smallest:

i) 4063, 4306, 4 thousand, 31004

\_\_\_\_\_

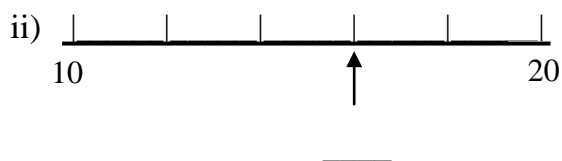
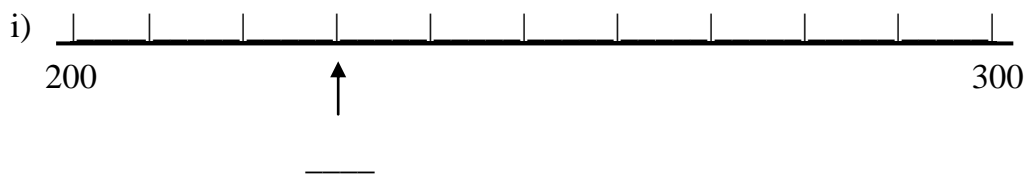
ii) 5.2, 5, 3.5, 3.9

\_\_\_\_\_

iii)  $5^{\circ}\text{C}$ ,  $0^{\circ}\text{C}$ ,  $2^{\circ}\text{C}$ ,  $-1^{\circ}\text{C}$

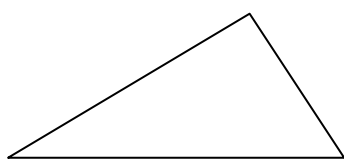
\_\_\_\_\_

c) Write down the number indicated by the arrow in the figures below:

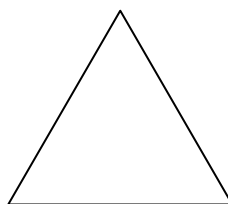


(7 marks)

2. a) Label these triangles using the words: isosceles, scalene and equilateral.



\_\_\_\_\_

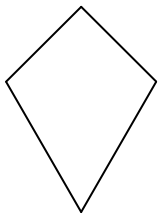

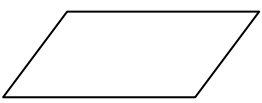
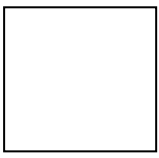
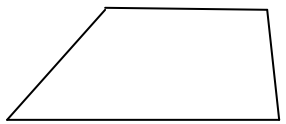


\_\_\_\_\_

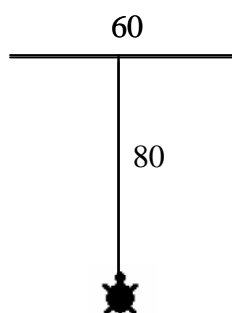


\_\_\_\_\_

b) Complete the table:

	Name of Shape	How many lines of symmetry?
	kite	1
		
		
	square	
		0

c) Nicole wants to draw this shape using LOGO. Fill in the blanks for her.



PD    FD\_\_\_\_    RT\_\_\_\_    FD30    BK60

(10 marks)

3. a) Complete these conversions:

- i) 1 m = \_\_\_\_\_ cm
- ii) 2 kg = \_\_\_\_\_ g
- iii) 5000 m = \_\_\_\_\_ km
- iv) 1.3 litres = \_\_\_\_\_ ml
- v) 3 hours = \_\_\_\_\_ minutes

b) Yesterday I went shopping and bought a diary costing €4.55, a pen costing 83c and a gift costing €15. How much did I spend in all?

**Answer:** \_\_\_\_\_

(8 marks)

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4. A group of children were asked to choose their favourite season. The following are the results:

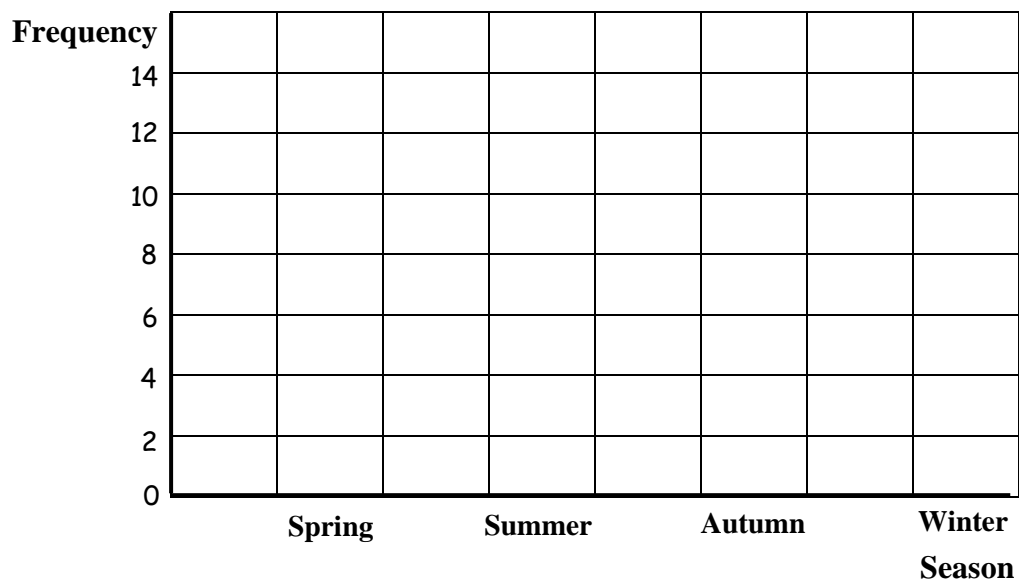
summer	winter	summer	summer	spring	winter
autumn	summer	spring	summer	spring	spring
winter	summer	summer	summer	spring	spring
autumn	summer	summer	spring	spring	summer
summer	spring	summer	summer		

a) Fill in the tally chart

<u>Season</u>	<u>Tally</u>	<u>Frequency</u>
Spring		
Summer		
Autumn		
Winter		3
Total:		

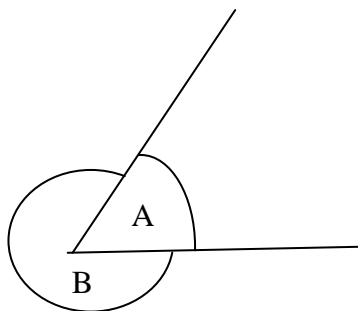


- b) Display the data on the bar chart.



(6 marks)

5. a)



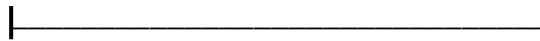
- i) Use a protractor to **measure** angle A.

**Answer:**      A = \_\_\_\_\_°

- ii) **Calculate** the size of angle B.

**Answer:**      B = \_\_\_\_\_°

b) Draw an angle of  $105^\circ$  on the line provided.



c) Label the following angles as *acute*, *obtuse*, *reflex* or *right angle*.

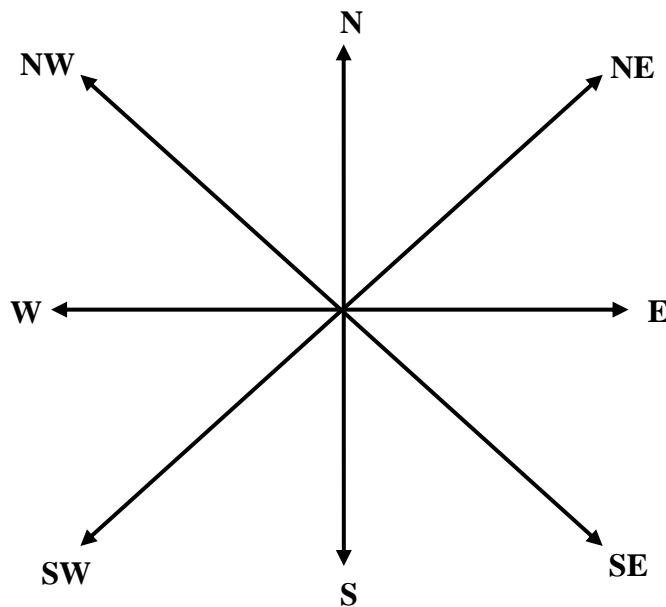
$200^\circ$  \_\_\_\_\_

$90^\circ$  \_\_\_\_\_

$43^\circ$  \_\_\_\_\_

$132^\circ$  \_\_\_\_\_

d) Fill in :



Direction	Compass Bearing
East	$090^\circ$
_____	$045^\circ$
West	_____

(8 marks)

6. a) Use your calculator to work out:

i)  $40 - (-20) = \underline{\hspace{2cm}}$

ii)  $-523 + 260 = \underline{\hspace{2cm}}$

iii)  $\frac{3}{5} \times 60 = \underline{\hspace{2cm}}$

b) Complete this table:

Fraction	Decimal	Percentage
$\frac{1}{4}$	0.25	25%
$\frac{1}{2}$	$\underline{\hspace{2cm}}$	$\underline{\hspace{2cm}}$
$\underline{\hspace{2cm}}$	0.2	$\underline{\hspace{2cm}}$

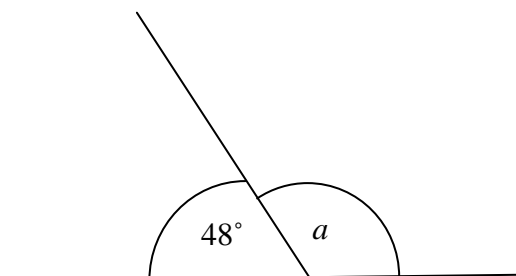
c) Jake ate  $\frac{1}{2}$  of his pizza and John ate 70% of his pizza. Who ate most?

**Answer:**  $\underline{\hspace{2cm}}$   
(8 marks)

7. **Calculate** each lettered angle.

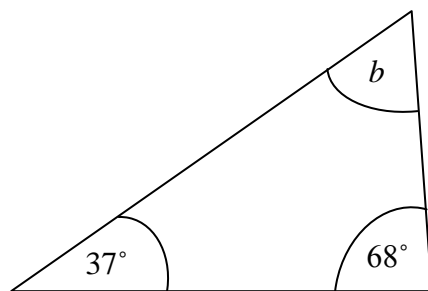
*Note: The diagrams are not to scale so you cannot measure the angles with a protractor.*

a)



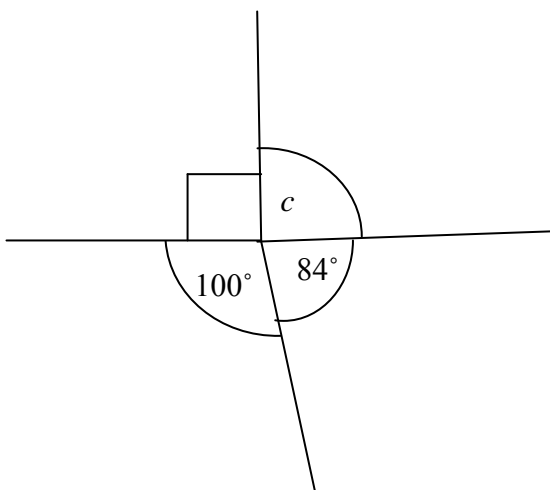
$a = \underline{\hspace{2cm}}$

b)



$b =$  \_\_\_\_\_

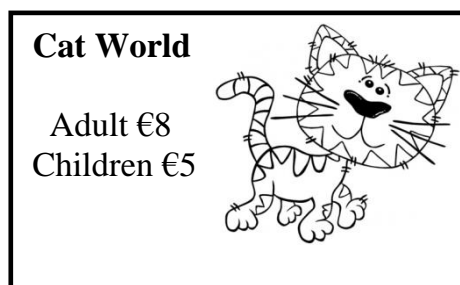
c)



$c =$  \_\_\_\_\_

(6 marks)

8. Look at this advert:



a) Complete this formula:

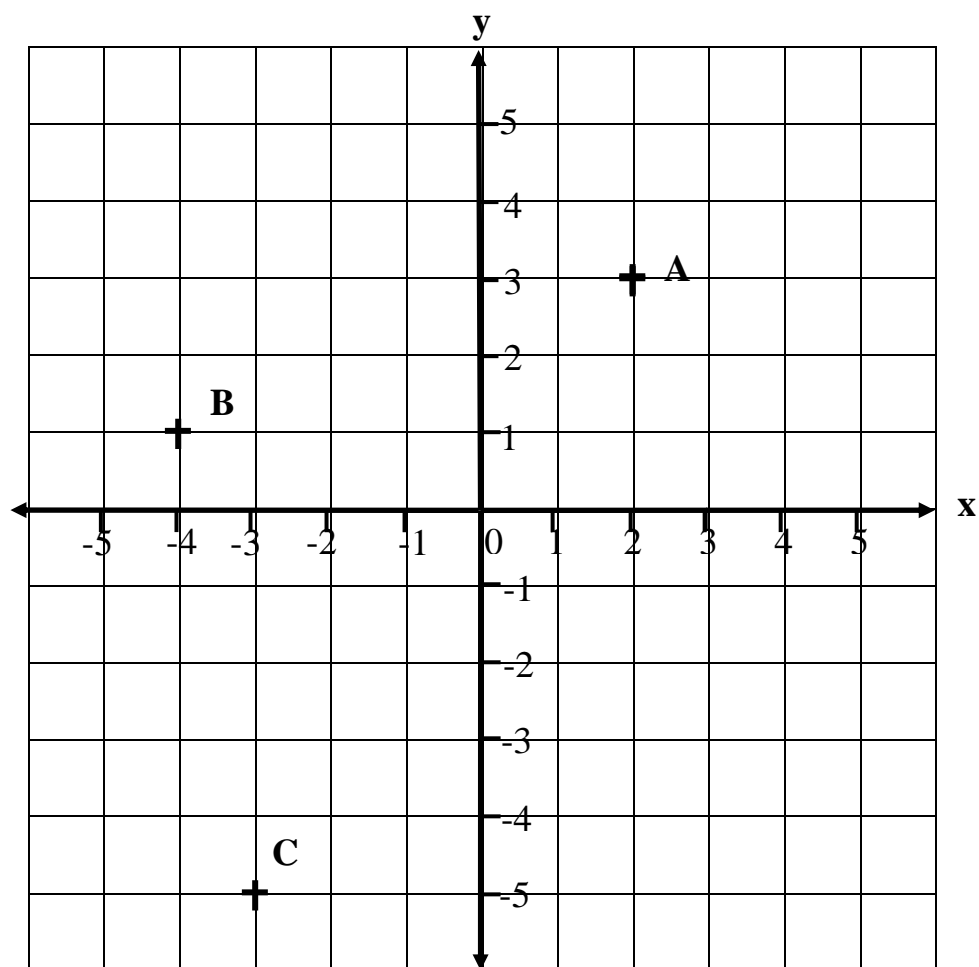
Cost (€) =  $8 \times$  number of  +   $\times$  number of children

b) How much does it cost for 2 adults and 4 children?

**Answer:** \_\_\_\_\_

(4 marks)

9.



a) Write down the co-ordinates of points A, B and C.

A ( \_\_ , \_\_ )

B ( \_\_ , \_\_ )

C ( \_\_ , \_\_ )

b) Mark and label the following points on the graph.

D (3, -4)

E (0, 5)

F (-5, -1)

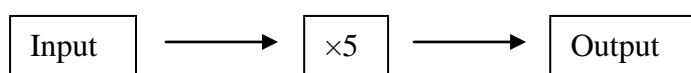
c) What do I call the point (0, 0)?

**Answer:** \_\_\_\_\_  
(7 marks)

10. a) Work out the value of  $2 \times a + 5 \times b - c$  when  $a = 3$ ,  $b = 4$  and  $c = 2$ .

**Answer:** \_\_\_\_\_

b) Look at this number machine:



What is the output when the input is 6?

**Answer:** \_\_\_\_\_  
(3 marks)

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11. In a survey 40 students were asked to name their favourite colour. The pie chart shows the results.

a) Which colour did half the students choose?

**Answer:** \_\_\_\_\_

b) What fraction chose yellow?

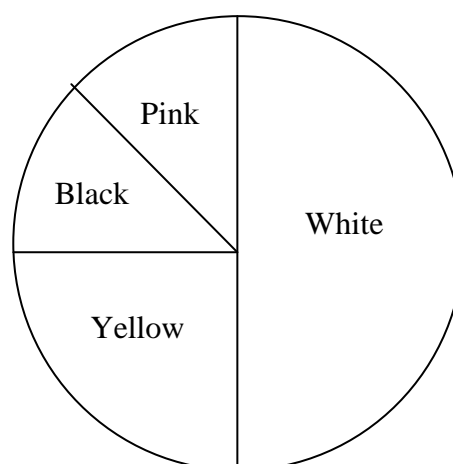
**Answer:** \_\_\_\_\_

c) How many chose yellow?

**Answer:** \_\_\_\_\_

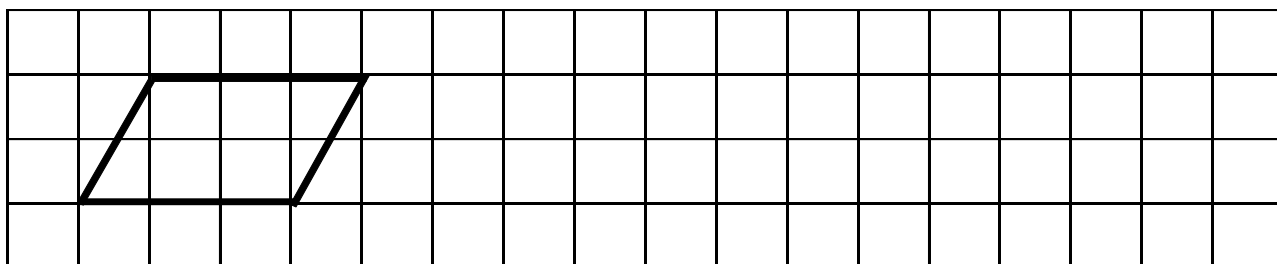
d) What fraction chose pink?

**Answer:** \_\_\_\_\_

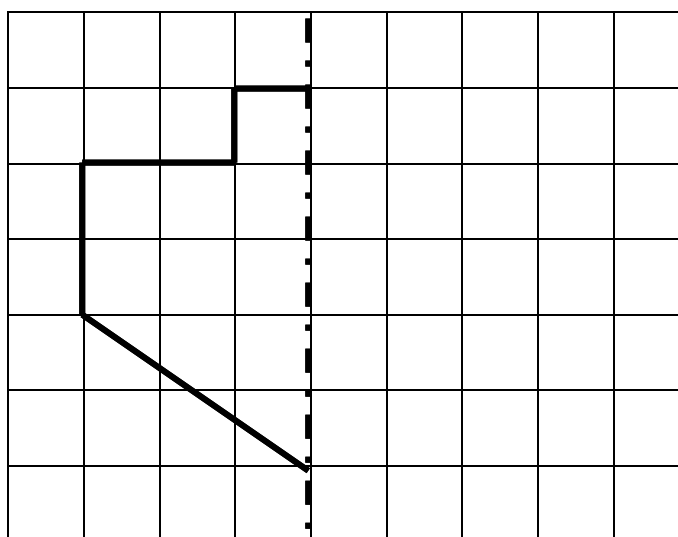


(4 marks)

12. a) Make a tessellation using this shape. Draw another 4 shapes.



b) Draw the reflection in the line of symmetry.



(4 marks)