

Mock Grade 4

Maths

Booklet 3

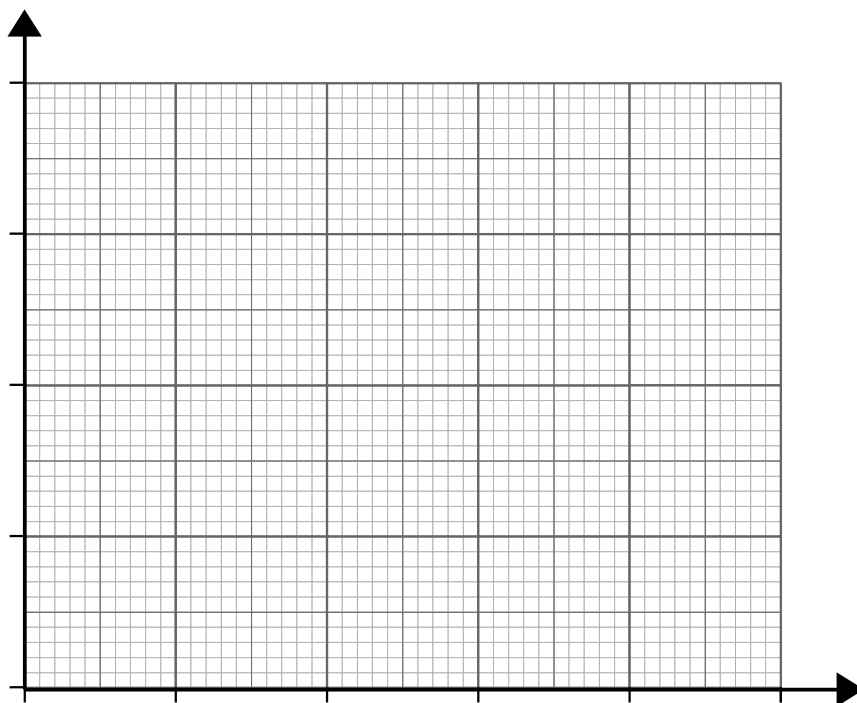
Paper 2H
Calculator

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- 1 The frequency table shows the heights, in cm, of some people.

Height (cm)	Frequency
$140 < h \leq 150$	7
$150 < h \leq 160$	25
$160 < h \leq 170$	34
$170 < h \leq 180$	29
$180 < h \leq 190$	16

Draw a frequency polygon to show this information.



(Total for Question 1 is 4 marks)

- 2 The length of a pencil is 189 mm correct to the nearest millimetre.

Complete the error interval for the length of the pencil.

..... mm \leq length < mm

(Total for Question 2 is 2 marks)

- 3 Tom and Adam have a total of 540 stamps.

The ratio of the number of Tom's stamps to the number of Adam's stamps is 4:5

Tom buys some stamps from Adam.

The ratio of the number of Tom's stamps to the number of Adam's stamps is now 7:8

How many stamps does Tom buy from Adam?

You must show all your working.

.....

(Total for Question 3 is 4 marks)

- 4 Each person in a fitness club is going to get a free gift.
Stan is going to order the gifts.

Stan takes a sample of 40 people in the fitness club. He asks each person to tell him the gift they would like.

The table shows information about his results.

Gift	Number of people
sports bag	13
gym towel	9
headphones	6
voucher	12

There are 720 people in the fitness club.

- (i) Work out how many sports bags Stan should order.

.....
(2)

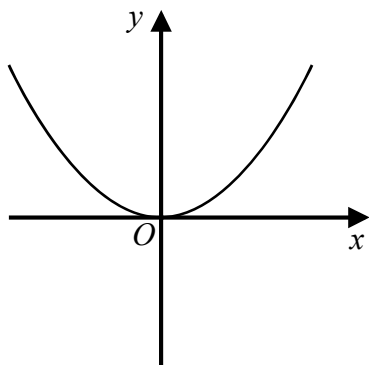
- (ii) Write down any assumption you made **and** explain how this could affect your answer.

.....
.....
.....
.....
(1)

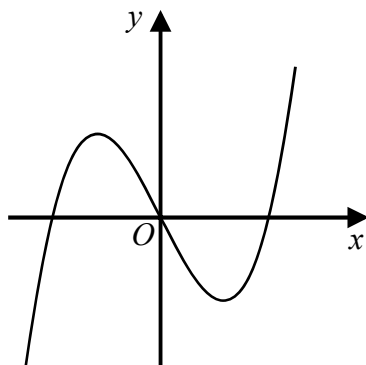
(Total for Question 4 is 3 marks)

5 Here are six graphs.

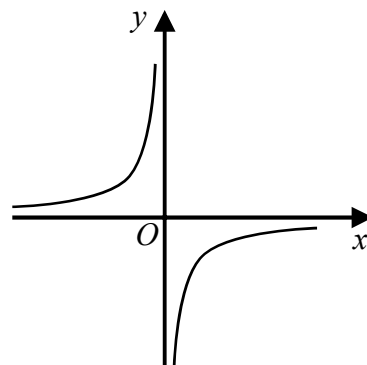
A



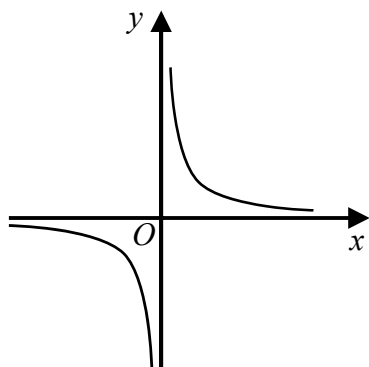
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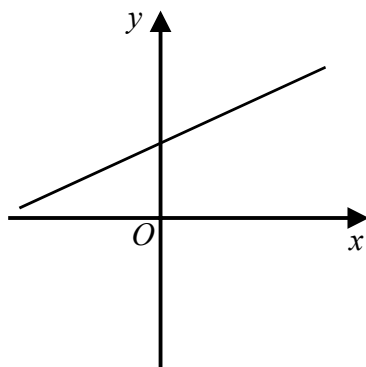
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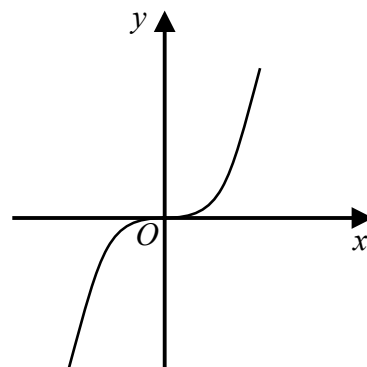
D



E



F



Write down the letter of the graph that could have the equation

(a) $y = x^2$

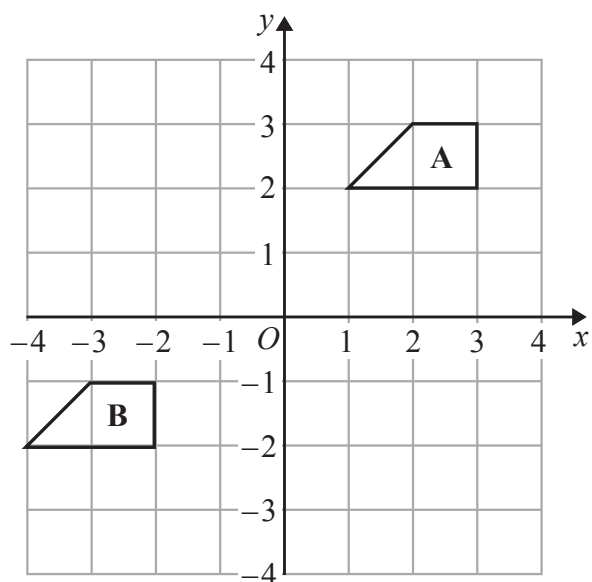
.....
(1)

(b) $y = -\frac{1}{x}$

.....
(1)

(Total for Question 5 is 2 marks)

6



Describe the single transformation that maps shape A onto shape B.

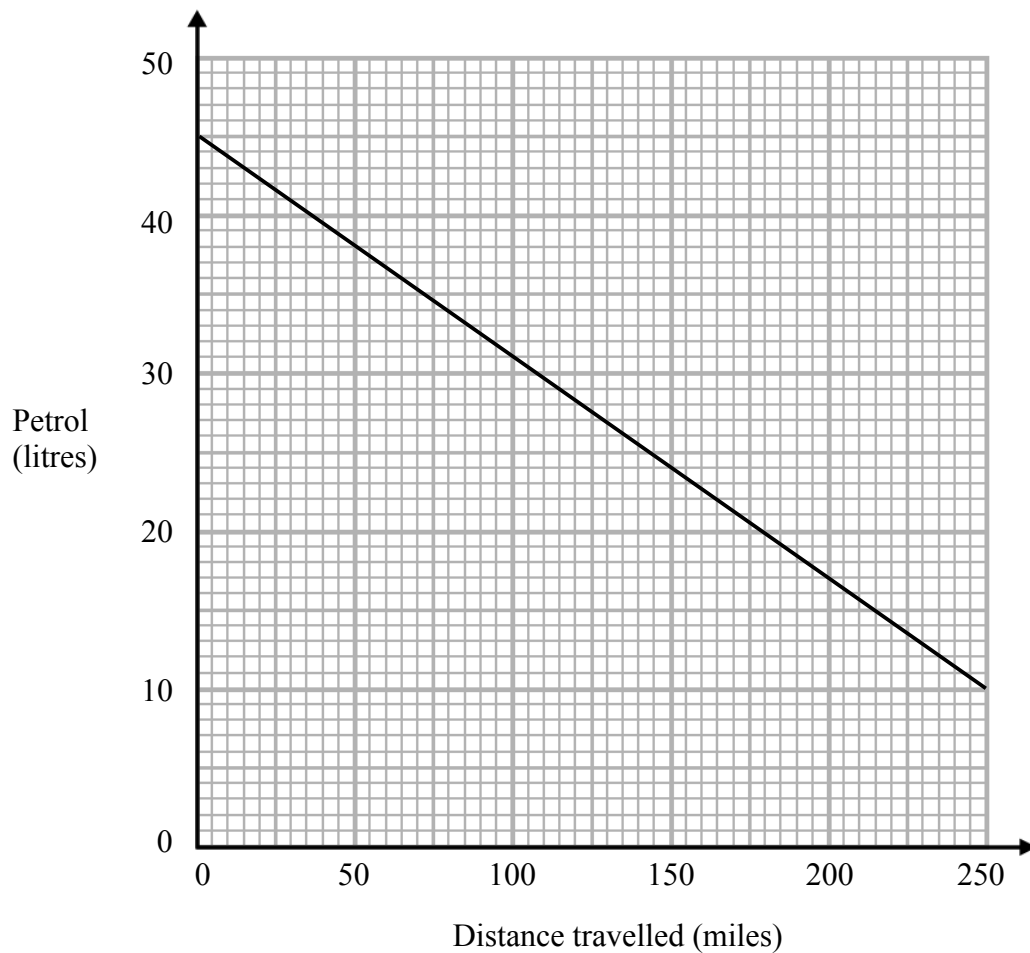
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(Total for Question 6 is 2 marks)

7

John draws a graph to show the amount of petrol his car used on a 250 mile journey.



(a) How much petrol was in John's car at the start of his journey?

..... litres
(1)

(b) How many more miles can John's car travel before it runs out of petrol?

..... miles
(1)

(c) What assumption have you made to calculate your answer to (b)?

.....

.....

(1)

(Total for question 7 is 3 marks)

8 Expand and Simplify $3(6y + 5) - 2(4y - 1)$

.....
(2)

(b) Simplify $5m^2n^3 \times 3mn^4$

.....
(2)

(Total for Question 8 is 4 marks)

- 9 The size of each interior angle in a regular polygon is 165° .
Work out how many sides the polygon has.

.....

(Total for Question 9 is 3 marks)