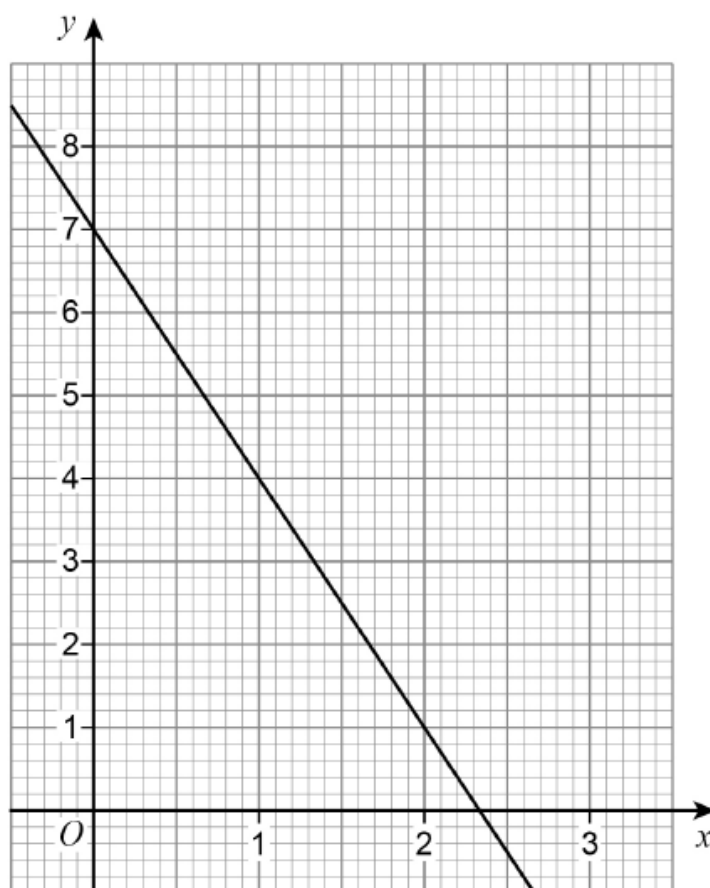


Graphs – GCSE Mathematics Paper 1

1. No.16

Here is the graph of $y = 7 - 3x$ 

Draw the graph of $y = 2x + 1$ on the grid
and then

work out an approximate solution to $7 - 3x = 2x + 1$

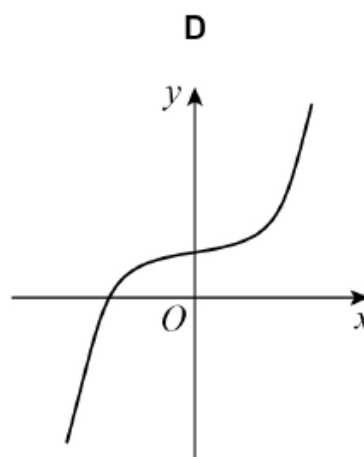
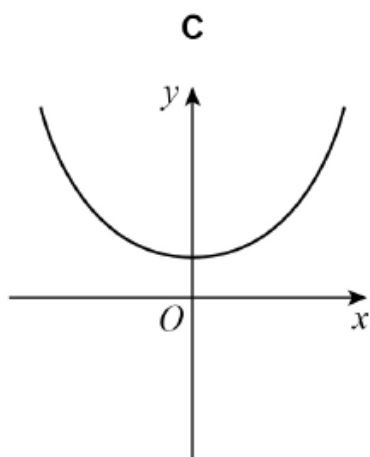
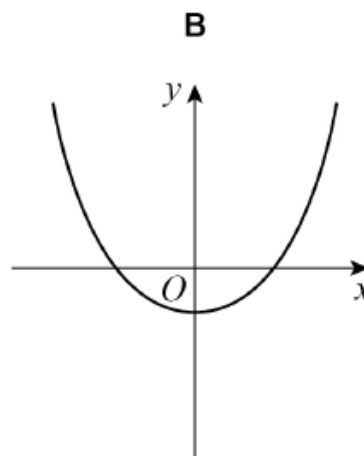
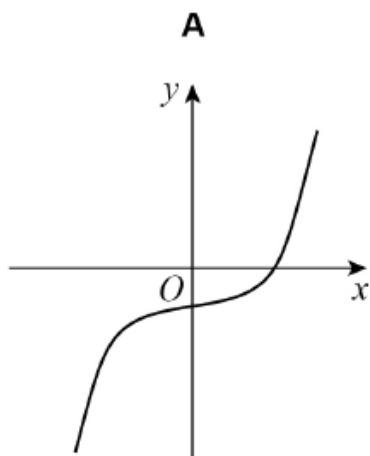
[3 marks]

Answer _____

2. No.21

Circle the letter of the possible sketch graph of $y = x^3 - 4$

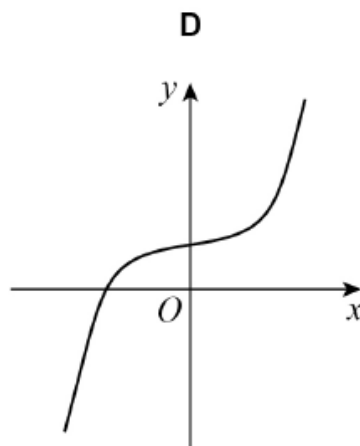
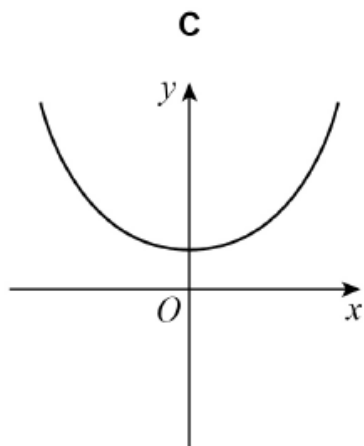
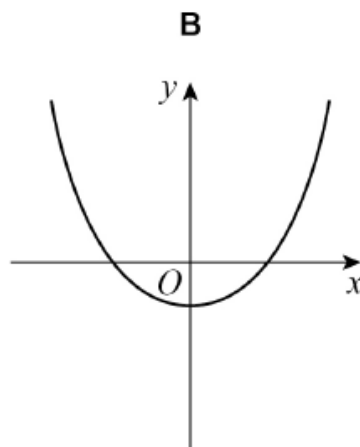
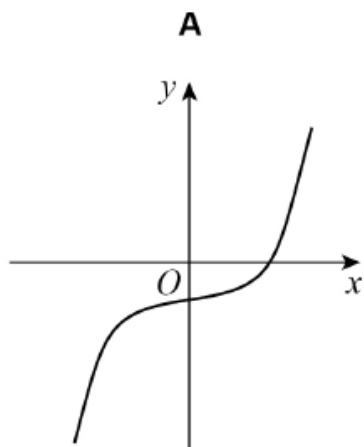
[1 mark]



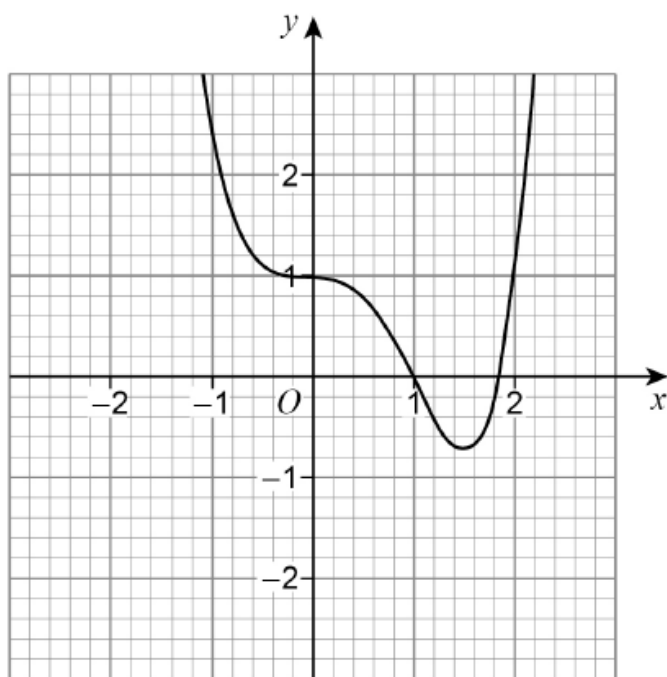
3. No.16

Circle the letter of the possible sketch graph of $y = x^3 - 4$

[1 mark]



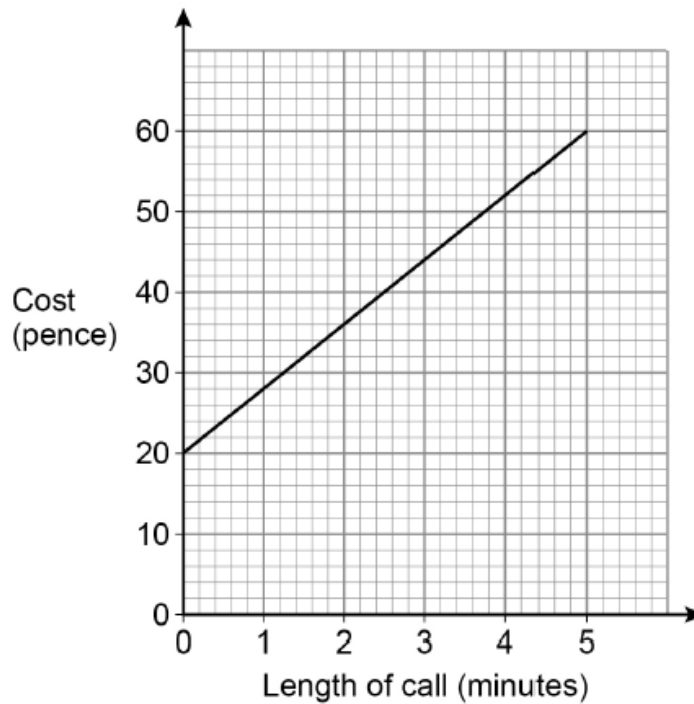
4. No.27

The grid shows the graph of $y = f(x)$ On the grid, draw the graph of $y = -f(x)$ **[2 marks]**

5. No.18

The cost of making a phone call is
a fixed charge
and
a charge per minute.

The costs of phone calls up to 5 minutes are represented by the graph.



(a) Write down the fixed charge.

[1 mark]

Answer _____ pence

(b) Work out the charge per minute.

[2 marks]

Answer _____ pence

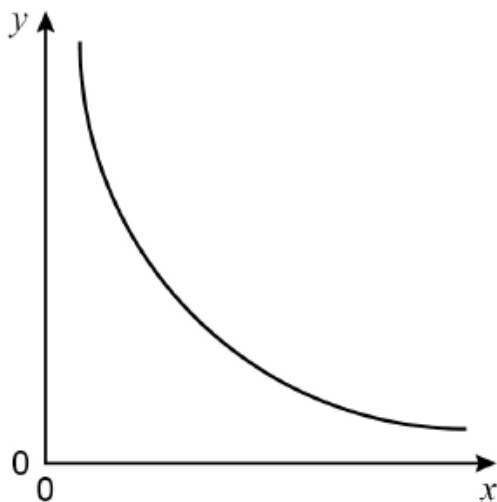
(c) Work out the cost of a phone call lasting 7 minutes.

[2 marks]

Answer _____ pence

6. No.29

Here is a sketch of a graph.



Circle the equation of the graph.

k is a constant.

[1 mark]

$$y = kx$$

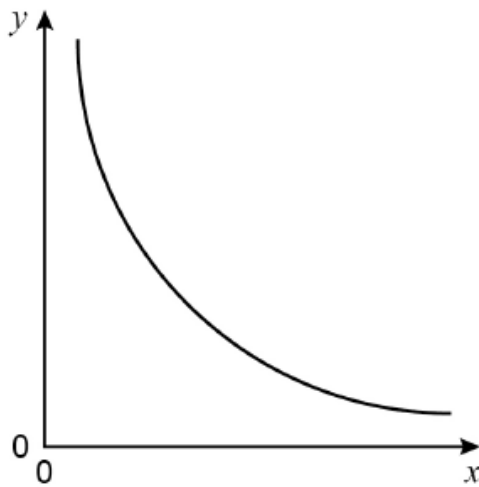
$$y = k + x$$

$$y = k - x$$

$$y = \frac{k}{x}$$

7. No.4

Here is a sketch of a graph.



Circle the equation of the graph.

k is a constant.

[1 mark]

$$y = kx$$

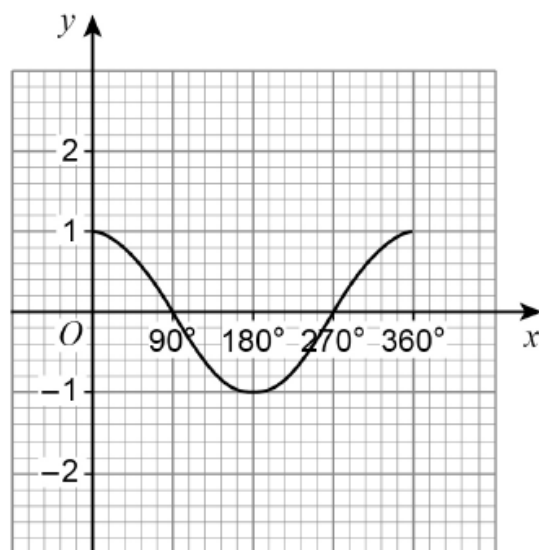
$$y = k + x$$

$$y = k - x$$

$$y = \frac{k}{x}$$

8. No.28

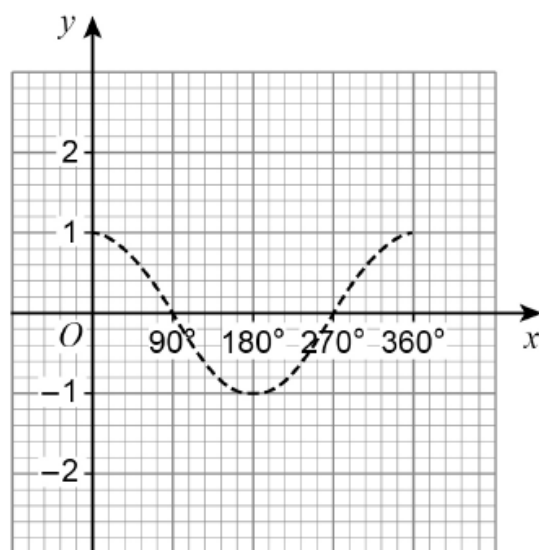
Here is the graph of $y = \cos x$ for $0^\circ \leq x \leq 360^\circ$



In parts (a) and (b) the graph of $y = \cos x$ is shown as a dashed line.

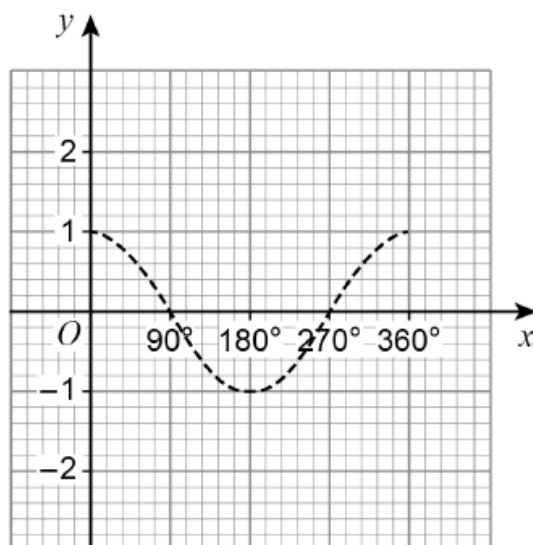
- (a) On the grid below, draw the graph of $y = \cos(x - 90^\circ)$ for $0^\circ \leq x \leq 360^\circ$

[1 mark]



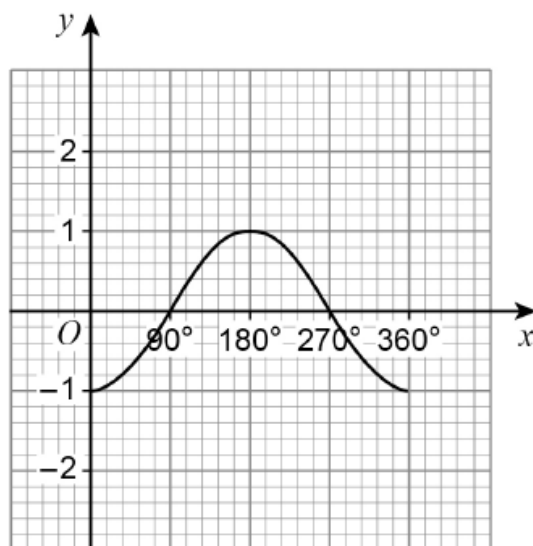
- (b) On the grid below, draw the graph of $y = 1 + \cos x$ for $0^\circ \leq x \leq 360^\circ$

[1 mark]



- (c) Rita tries to draw the graph of $y = \cos(-x)$ for $0^\circ \leq x \leq 360^\circ$

Here is her graph.



Give a reason why Rita's graph is incorrect.

[1 mark]
