

**FOUNDATION TIER
MINI PRACTICE EXAM 6**



**CALCULATOR ALLOWED
20 MINUTES ALLOWED**

1.
At a supermarket, apples cost 40p each and bananas cost 55p each.

(a) Darius went to the supermarket and spent £1.75 on apples and bananas.
How many apples and how many bananas did he buy?

$$55 \times 1 = 55$$

$$40 \times 3 = 120$$

$$+ = 175$$

1 banana
3 apples

(2)

(b) Write an equation, in terms of a and b, for the total cost (C) of buying a apples and b bananas from the supermarket.

$$C = 40a + 55b$$

(1)

2.
Leo and Kaylie are joggers.

The table below shows the distances (in metres) they ran in May and June.

	May	June
Leo	26,500	36,000
Kaylie	17,500	24,500

Who had the highest percentage increase in metres run from May to June?
Show all your working.

$$\text{Leo} = \frac{36000 - 26500}{26500} \times 100 = 35.85\%$$

$$\text{Kaylie} = \frac{24500 - 17500}{17500} \times 100 = 40\%$$

kaylie
(4)

3.
(a) Circle the gradient of the line $y = 2x - 3$.

- 2 -2 -3 3

(1)

(b) Circle the co-ordinates of the y-intercept of the line $y = 2x - 3$.

- (-3, 0) (2, -3) (-3, 2) (0, -3)

(1)

(c) Circle the equation of the line that is parallel to the line $y = 2x - 3$.

- $y = 4x - 3$ $y = 2x + 5$ $y = x - 3$ $y = -3x$

(1)

4.

(a) Fill in the table below for values of the graph $y = x^2 - x - 5$.

x	-3	-2	-1	0	1	2	3
y	7	1	-3	-5	-5	-3	1

$$(-3)^2 - (-3) - 5 = 7$$

$$(-2)^2 - (-2) - 5 = 1$$

$$(-1)^2 - (-1) - 5 = -3$$

$$0^2 - 0 - 5 = -5$$

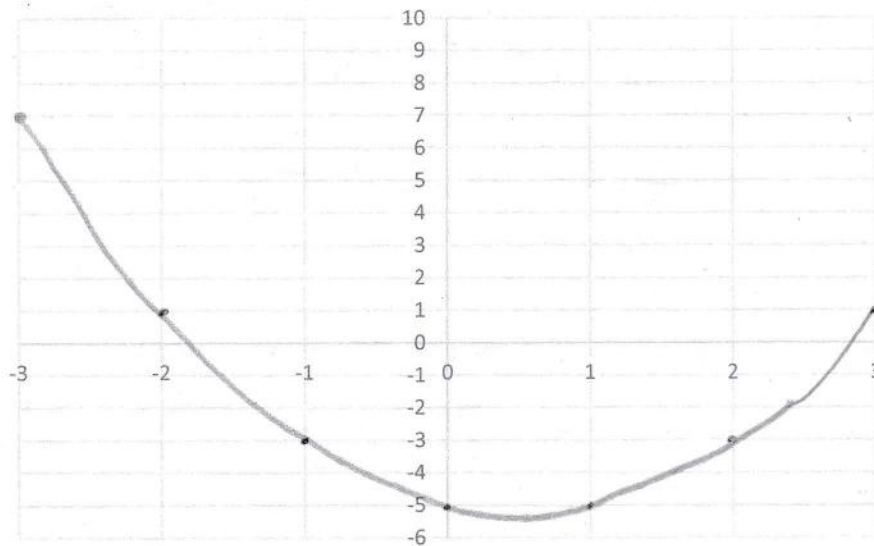
$$1^2 - 1 - 5 = -5$$

$$2^2 - 2 - 5 = -3$$

$$3^2 - 3 - 5 = 1$$

(4)

(b) Plot the graph $y = x^2 - x - 5$ on the axis below.



(2)

5.

A wildlife park has three types of birds – vultures, eagles and hawks.

The ratio of vultures to eagles to hawks is 5:7:3.

There are 472 more eagles than there are hawks.

How many vultures are there at the wildlife park?

$$7 - 3 = 4$$

$$472 \div 4 = 118 = 1 \text{ part}$$

$$118 \times 5 = \underline{590}$$

(4)