

**FOUNDATION TIER
MINI PRACTICE EXAM 6**



**NON-CALCULATOR
20 MINUTES ALLOWED**

1.

(a) Expand $x(x + 4)$

$$x^2 + 4x$$

(1)

(b) Factorise $15x - 25$

$$5(3x - 5)$$

(1)

(c) Simplify $3x + y - 2x + y$

$$x + 2y$$

(1)

(d) Solve $4(2x - 1) = 36$

$$\begin{array}{r} 8x - 4 = 36 \\ +4 \qquad \qquad +4 \\ \hline 8x = 40 \\ \div 8 \qquad \qquad \div 8 \end{array}$$

$$\underline{x = 5}$$

(2)

2.

For every pound a company spends on advertising, they spend £2.40 on wages and £1.40 on supplies.

Express the ratio of money spent on advertising to money spent on wages to money spent on supplies, in its simplest form.

$$\begin{array}{l} 100 : 240 : 140 \\ 10 : 24 : 14 \\ \underline{5 : 12 : 7} \end{array}$$

(3)

3.

(a) Draw the line $y = -2$ on the axis.

(1)

(b) Draw the line $x = 9$ on the axis.

(1)

(c) Draw the line $y = x$ on the axis.

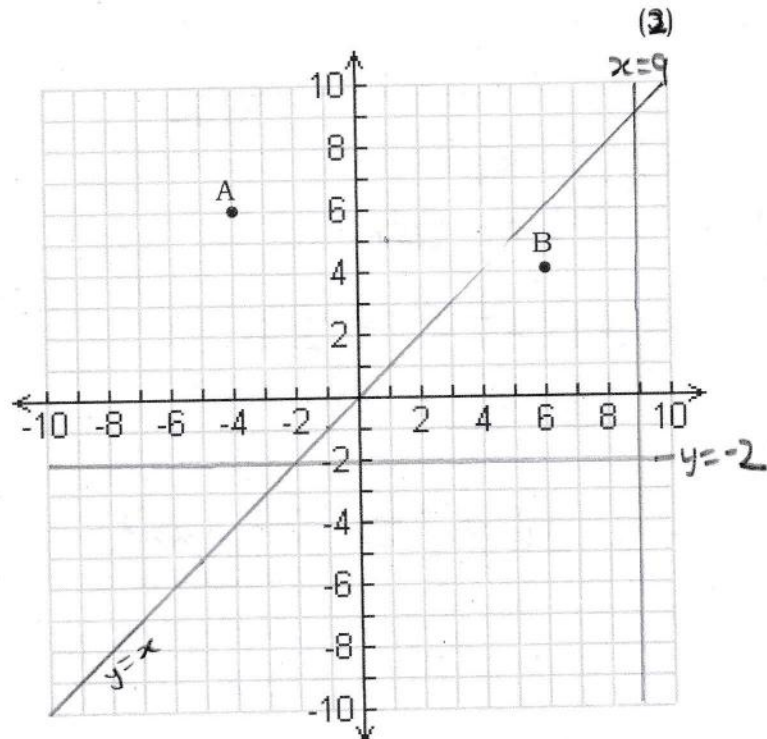
(1)

(d) Write down the co-ordinates of the midpoint of the AB.

$$\left(\frac{-4+6}{2}, \frac{6+4}{2} \right)$$

$$(1, 5)$$

(2)



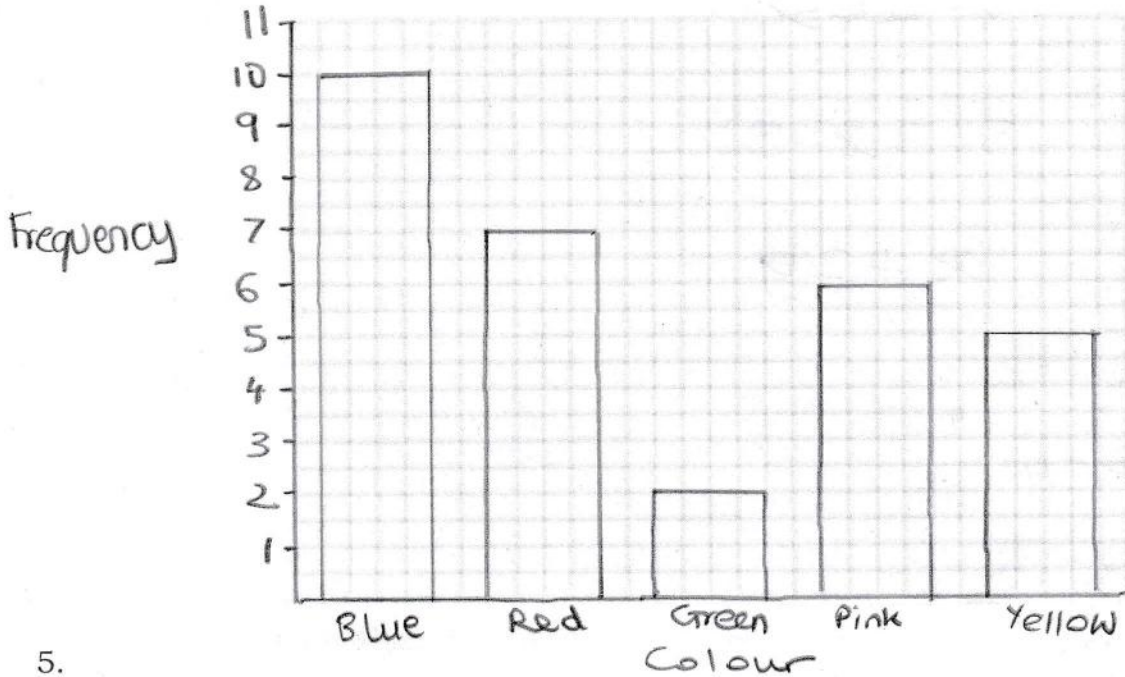
4.

Brad asked 30 people at his school what their favourite colour was. The results are given in the table below.

Colour	Blue	Red	Green	Pink	Yellow
Frequency	10	7	2	6	5

In the space below, draw an appropriate chart to represent the results.

(3)

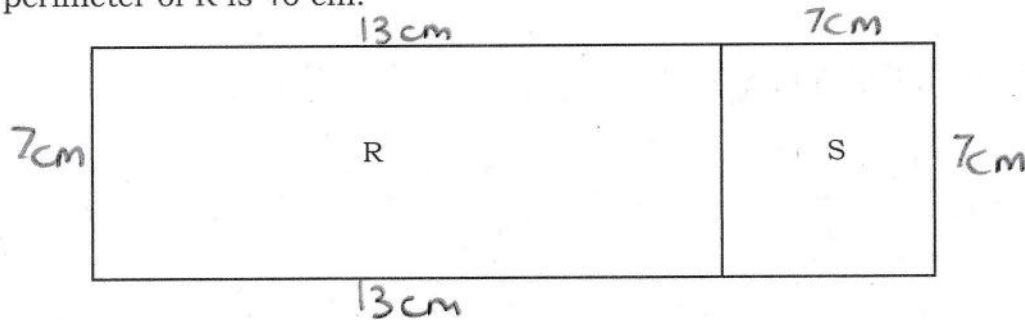


5.

A shape is made from a rectangle (R) and a square (S).

The area of S is 49 cm^2 .

The perimeter of R is 40 cm.



Work out the total area of the shape.

$$7 \times 7 = 49$$

$$40 - 7 - 7 = 26$$

$$26 \div 2 = 13$$

$$13 \times 7 = \underline{91 \text{ cm}^2}$$

(5)