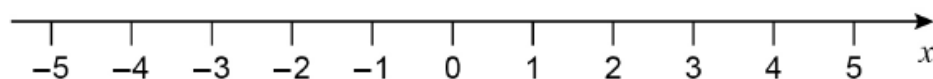


Solving equations and inequalities – GCSE Mathematics1. **No.10**(a) Represent $-2 < x < 4$ on the number line.**[1 mark]**(b) Solve $5y + 14 \geq 11$ **[2 marks]**

Answer _____

2. No.14

4 chocolate bars and 3 packets of mints cost £4.70

5 chocolate bars and 1 packet of mints cost £4.50

Work out the cost of a chocolate bar and the cost of a packet of mints.

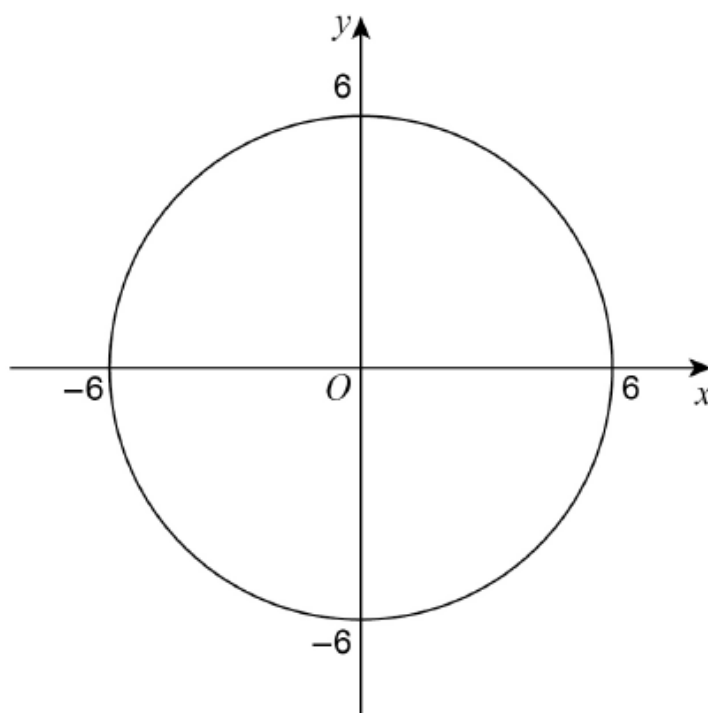
[4 marks]

chocolate bar _____

packet of mints _____

3. No.18

A circle has centre O and passes through $(0, 6)$



Write down the equation of the circle.

[1 mark]

Answer _____

4. No.24

(a) $9k + 7$ and $2k^2 + 3$ are consecutive integers. $9k + 7$ is the smaller integer.Work out the value of the **next** consecutive integer.

[5 marks]

Answer _____

(b) x is a square number.Show that the **next** square number is $x + 2\sqrt{x} + 1$

[2 marks]

5. No.4

 $3(x - 1) \equiv 3x - 3$ is an identity.Tick **one** box.

[1 mark]

☐It is true for **all** values of x ☐It is true for **some** values of x ☐It is true for **no** values of x

6. No.24

Write $2x^2 - 12x + 7$ in the form $d(x + e)^2 + f$ where d , e and f are integers.

[3 marks]

Answer _____