1 Here are two inequalities.

$$-2 \leqslant x \leqslant 3$$

$$9 \leqslant x + y \leqslant 11$$

x and y are integers.

Work out the **greatest** possible value of $y - x$

[3 marks]

Answer _____

2 (a) Solve $5x + 6 > 3x + 15$

[3 marks]

Answer _____

2 (b) Write down the inequality represented by the number line.

[2 marks]

Answer _____

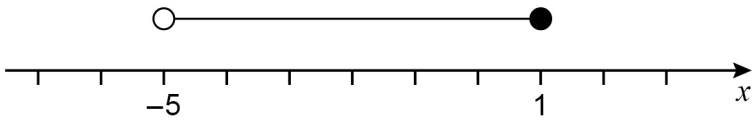
3 $m^2 > 9$

Circle the possible value of m.

[1 mark]

$-2\frac{7}{8}$ 2.8 3 $-\frac{7}{2}$

4 Circle the inequality represented by the diagram.



[1 mark]

$-5 < x < 1$ $-5 < x \leqslant 1$ $-5 \leqslant x < 1$ $5 \leqslant x \leqslant 1$

5 Solve $2x < 26$

[1 mark]

Answer _____

6 (a) $a \times 10^n$ is a number in standard form.

Complete the inequality for the value of a.

[1 mark

_____ $\leqslant a <$ _____

7 $6 < \sqrt[3]{x} < 7$

Circle the possible value of x.

[1 mark]

1.9 20 45 290

8 Work out all the **integer** values of x for which $12 \leqslant 4x < 25$

[2 marks]

Answer _____

9 $30 < x < 300$

x is 200% of y

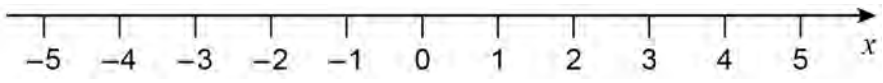
Circle the correct inequality.

[1 mark]

$10 < y < 100$ $15 < y < 150$ $60 < y < 600$ $90 < y < 900$

10 (a) Represent $-2 < x < 4$ on the number line.

[1 mark]



10 (b) Solve $5y + 14 \geqslant 11$

[2 marks]

Answer _____