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

[3 marks]

$5x - 3x > 15 - 6$ (1)

$2x > 9$ (1)

$x > \frac{9}{2}$ (1)

Answer $x > \frac{9}{2}$

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

[2 marks]

Answer $2 \leq x < 5$ (2)

2 (a) Which statement is correct?

Tick **one** box.

☐ $17 + 3 < 29 - 10$ 20 < 19

☐ $17 + 3 = 29 - 10$ 20 = 19

☑ $17 + 3 > 29 - 10$ 20 > 19 (1)

Show working to support your answer. **[2 marks]**

17 + 3 = 20 , 29 - 10 = 19 (1)

20 > 19

3 (a) x is at least 7

Circle the correct inequality.

[1 mark]

$x < 7$ $x \leqslant 7$ $x > 7$ $x \geqslant 7$ (1)

4 Write down all the integers that satisfy the inequality

$$-3 \leqslant x < 2$$

[2 marks]

Answer $-3, -2, -1, 0, 1$ (2)

5 (a) $c > 4$ $d < 4$ $c - d = 6$

Work out a possible pair of values for c and d.

[2 marks]

$c =$ 7 $d =$ 1

2

5 (b) w is greater than 1 **and** less than 2

x is greater than 0 **and** less than 1

$w + x = 2.6$

Work out a possible pair of values for w and x.

[2 marks]

$w =$ 1.9 $x =$ 0.7

2

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

[2 marks]

$12 \leqslant 4x$ $\quad 4x < 25$

$3 \leqslant x$ (1) $\quad x < \frac{25}{4}$

$3 \leqslant x < 6.25$

3, 4, 5, 6 (1)

Answer 3 4 5 6

7 The largest possible value of n is 2

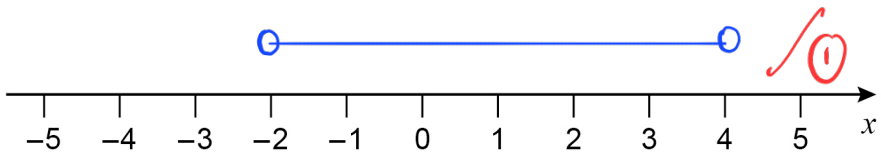
Circle the correct inequality.

[1 mark]

$n \leqslant 2$ $n < 2$ $n \geqslant 2$ $n > 2$

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

[1 mark]



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

[2 marks]

$5y \geqslant 11 - 14$ ✓1

$5y \geqslant -3$

$y \geqslant \frac{-3}{5}$ ✓1

Answer $y \geqslant -\frac{3}{5}$