Linear Inequalities

1) Solve the inequality
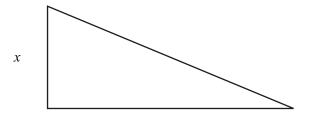
$$\frac{2x-5}{8} > \frac{x+4}{3}.$$

Answer .... [3]

2) Solve $9 < 3n + 6 \leqslant 21$ for integer values of n.

Answer(a) .... [3]

3) For this question, $1 < x < 2$.

Write the following in order of size, **smallest** first.

$$\frac{5}{x} \qquad 5x \qquad \frac{x}{5} \qquad x - 5$$

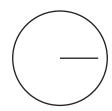*Answer* .... $<$ .... $<$ .... $<$ .... [2]

Linear Inequalities

4) x is a positive integer and $15x - 43 < 5x + 2$.

Work out the possible values of x.

Answer   [3]

5)   Solve the inequality.
$$3y + 7 \leqslant 2 - y$$

Answer   [2]

6)   Solve the inequality. $2x + 5 \quad < \quad \dfrac{x - 1}{4}$

Answer   [3]

7)   Solve the inequality.
$$\frac{2x - 3}{5} - \frac{x}{3} \leqslant 2$$

A

Answer   [3]

8) List all the **prime numbers** which satisfy this inequality.

$$16 < 2x - 5 < 48$$

Answer .... [3]