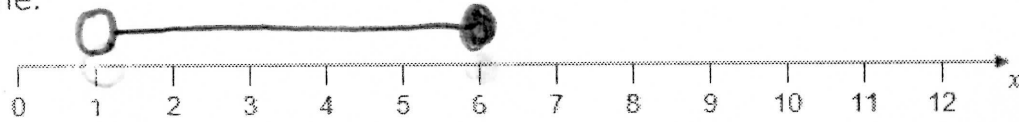


b) Solve the inequality $4(x + 2) > 12$

$$\begin{aligned} &\hookrightarrow x + 2 > 3 \quad \downarrow \div 4 \\ &\hookrightarrow x > 1 \quad \downarrow - 2 \end{aligned}$$

[2]

c) Represent the solution set that satisfies both answers to parts (a) and (b) on the number line.



[1]

Inequalities (H & F)

A collection of 9-1 Maths GCSE Sample and Specimen questions from AQA, OCR, Pearson-Edexcel and WJEC Eduqas.

Name:	@mhorley
Total Marks:	

1. Solve $5x - 2 > 3x + 11$

$$\begin{aligned} &-3x \hookrightarrow 2x - 2 > 11 \quad \downarrow -3x \\ &+2 \hookrightarrow 2x > 13 \quad \downarrow +2 \\ &\div 2 \hookrightarrow x > 13/2 \quad \downarrow \div 2 \end{aligned}$$

[2]

2. (a) (i) Solve.

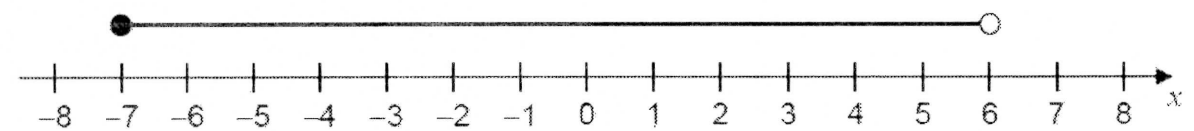
$$\begin{aligned} &5x + 1 > x + 13 \\ &-x \hookrightarrow 4x + 1 > 13 \quad \downarrow -x \\ &\hookrightarrow 4x > 12 \quad \downarrow -1 \\ &\hookrightarrow x > 3 \quad \downarrow \div 4 \end{aligned}$$

(a)(i) $x > 3$ [3]

(ii) Write down the largest integer that satisfies $5x - 1 < 10$.

$$\begin{aligned} &5x < 11 \\ &\text{if } x = 2 \quad 5x = 10, 10 < 11 \\ &\text{(ii) } 2 \text{ [1]} \end{aligned}$$

3. Circle the inequality shown by the diagram.



$-7 < x < 6$ $-7 \leq x < 6$ $-7 < x \ll 6$ $-7 \ll x \ll 6$

[1]

4. a) Solve the inequality $\frac{3x}{2} \leq 9$

$$\begin{aligned} &\xrightarrow{\times 2} 3x \leq 18 \\ &x \leq 6 \quad \downarrow \div 3 \end{aligned}$$

[2]