

**Q Inequalities (Non-Calc)**

**7** Solve.

$$4x - 3 \geq 9$$

..... [2]

**6** Solve the inequality.

$$7 \leq 11x$$

..... [1]

**15** Solve.

$$12x - 3 \geq 4x + 13$$

..... [2]

**7** Solve  $2x + 3 < 5x - 12$ .

..... [2]

8 Solve.

(b)  $11x - 3 \geq 2(2x + 9)$

..... [3]

5 Solve.

$9 - 2x \leq 5(x + 6)$

..... [3]

6 Solve  $2x + 6 > 5x - 10$ .

..... [2]

4 (a) Solve the inequality.

$$3m + 12 \leq 8m - 5$$

..... [2]

11 Solve.

$$4(2x - 3) \geq 43 + 3x$$

..... [3]

13 Solve.

$$4 - 3x \geq \frac{6 - x}{5}$$

..... [3]

- 7 (a) Naga has  $n$  marbles.  
Panav has three times as many marbles as Naga.  
Naga loses 5 marbles and Panav buys 10 marbles.  
Together they now have more than 105 marbles.

Write down and solve an inequality in  $n$ .

..... [3]

- 4 Find the integer values of  $x$  when  $-1 \leq x < 3$ .

..... [2]

- 1 Write down the integer values of  $x$  that satisfy the inequality  $-2 \leq x < 2$ .

..... [2]

(c)  $-8 < 3x - 2 \leq 7$

(i) Solve the inequality.

..... [3]

(ii) Find the integer values of  $x$  that satisfy the inequality.

..... [1]

12  $x$  is an integer and  $-3 \leq 2x - 1 < 3$ .

Find the values of  $x$ .

..... [2]

10 (a) Find all the positive integers which satisfy the inequality.

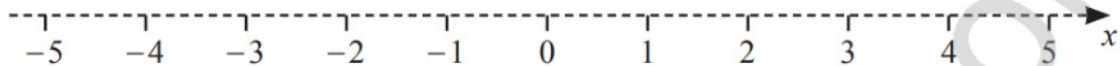
$$3n - 8 > 5n - 15$$

..... [2]

- 3 (a) Solve  $x + 9 > 6$ .

..... [1]

- (b) Show your answer to **part (a)** on this number line.

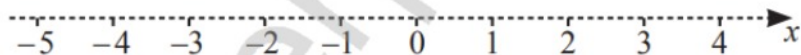


[1]

- 4 (a) Solve  $11 + 2x > 5$ .

..... [2]

- (b) Show your solution to **part (a)** on this number line.



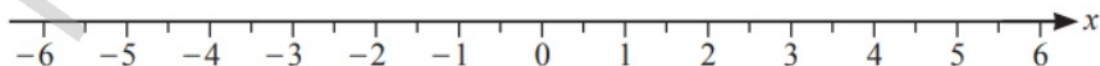
[1]

- (b) (i) Solve.

$$x - 3 \leq 5x + 7$$

..... [2]

- (ii) Show your answer to **part (b)(i)** on the number line.



[1]

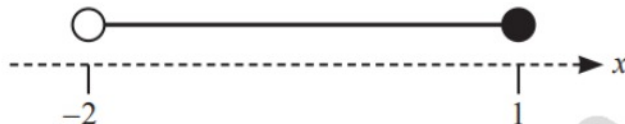
7



Write down the inequality, in terms of  $n$ , shown by the number line.

..... [1]

7 (a)



Write down the inequality in  $x$  shown by the number line.

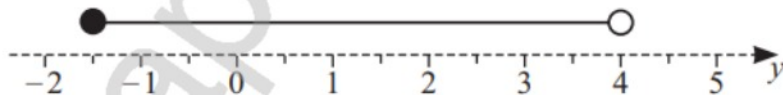
..... [2]

1 On the number line, show the inequality  $-2 \leq x < 3$ .



[2]

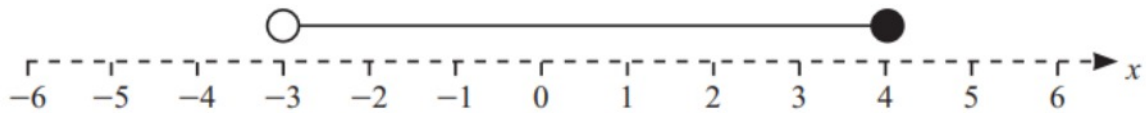
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Write down the inequality in  $y$  shown by the number line.

..... [2]

7

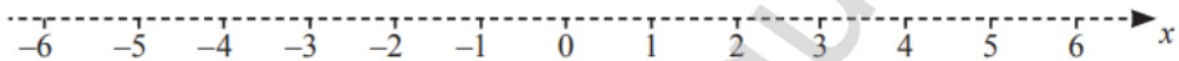


Write down the inequality for  $x$  represented on the number line.

..... [2]

3 Show this inequality on the number line.

$$-3 < x \leq 4$$



[2]

3 (a)



Write down the inequality shown by the number line.

..... [1]

(b)  $-3 \leq 2x + 3 < 9$

(i) Solve the inequality.

..... [3]

(ii) Write down all the integer values of  $x$  that satisfy the inequality.

..... [2]