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## **Inequalities**

- 1. Let *x* be an integer such that  $-2 \le x < 1$ .
  - a. List all possible values of x = -2, -1, 0
  - b. Solve the inequality  $17y \ge y + 48$   $y \ge 3$

(3 Marks)

- 2. Let *y* be an integer such that  $-1 \le y < 2$ 
  - a. List the possible values for y = -1, 0, 1
  - b. Solve the inequality: 7y 5 < 10 + 2y y < 3

(3 Marks)

- 3. Let *p* be an integer such that -4
  - a. List all possible values for *p*. p = -3, -2, -1, 0, 1, 2, 3
  - b. Solve the inequality:  $27p \le 15p + 108$   $p \le 9$

(3 Marks)

4. Draw the inequality  $x \ge -2$  on the number line.



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5. Draw the inequality  $-3 < x \le 4$  on the number line below.



6. Solve the inequality:  $16 - 4x \ge 9x - 49$   $x \le 5$  (2 Marks)

- 7. Solve the following inequalities:
- a.  $\frac{4x-3}{2} > \frac{x+8}{4}$  x > 2b.  $\frac{4x-3}{2} > \frac{x+5}{4}$   $x > \frac{11}{7}$ c.  $-1 < \frac{5x-5}{3} < 5$  0.4 < x < 4

(6 Marks)