

Mock exam A

Grade 9

Part I

Circle the letter corresponding to the correct answer.

1) Write a simplified expression to represent 4 times the sum of x and 5 increased by 10.

- a) $4x + 30$
- b) $4x + 25$
- c) $20x + 10$
- d) $60x$

2) Solve $2^3 - b > -6(2 - 4)$.

- a) $b < -6$
- b) $b < -4$
- c) $b > -6$
- d) $b > -4$

3) Evaluate $\frac{a^2 - b}{-c}$ for $a = -3$, $b = -1$, and $c = 2$

- a) -4
- b) 4
- c) 5
- d) -5

4) Evaluate $|-2(5a + b)| - |a - b^2|$ for $a = 1$ and $b = -2$.

- a) 3
- b) -3
- c) 1
- d) -9

5) A number is divided by three. The result is added to one. This result is multiplied by two to give 8. What is the number?

- a) 18
- b) 45
- c) 1
- d) 9

5) Solve $|x + 5| = 13$.

- a) 8
- b) -18
- c) no solution
- d) 8, -18

7) Solve $\frac{1}{2} + x = -\frac{3}{4}$

- a) $-\frac{1}{4}$
- b) $-1\frac{1}{4}$
- c) -1
- d) 1

3) Solve $2x + 4(x - 8) = \frac{3}{5}(10x + 15)$.

- a) 0
- b) all real numbers
- c) no solution
- d) 9

9) Solve the proportion $\frac{x+3}{4} = \frac{x-2}{5}$.

- a) 23
- b) -23
- c) 7
- d) -7

10) Solve $\frac{2}{3}x - \frac{1}{2} \leq \frac{1}{3}x$.

a) $x \geq \frac{3}{2}$

b) $x \leq \frac{3}{2}$

c) $x \geq 1$

d) $x \leq -1$