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

6) 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

8) 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) $\mathrm{x} \geq 1$

d) $\mathrm{x} \leq -1$