

Review Quiz 1.1: Expressions & Equations

1. Simplify the following using order of operations.

a) $\frac{55}{8(8-7)-3}$

b) $30 \div 10 - (16 \div 2^2)$

c) $-2(12 - 3) + 8^2$

2. Simplify the expression.

a) $-4j + 8 - j$

b) $3(x^2 + 2) + 5x^2 - 1$

3. Solve each equation.

a) $x - 57 = -45$

b) $3(-2 - 3x) = -9x - 4$

c) $\frac{1}{2}(2x - 6) = x - 3$

d) $6x - 4(x + 1) = 4(x - 3) + 8$

4. Justify each step of solving the following equation. Include the name of the property used.

$7 - (2x - 3) = -70$

$7 - 2x + 3 = -70$

$-2x + 10 = -70$

$-2x = -80$

$x = 40$

5. Solve for x: $y = mx + b$

6. Solve for a: $\frac{4b-c}{a} = 3$