

Part I: Short Answer

1. Solve $ax + b = c$ for x .

2. Solve $\frac{1}{ax + b} = c$ for x .

3. Express the following with a common denominator and simplify as much as possible: $\frac{4}{x + 1} - \frac{5}{x - 1}$.

4. Expand $(3x - 4)^2$.

5. Solve $(x + 13)^2 = 16$ for x .

6. Solve $-2 - 2a = -2 - 2(x + y)$ for x .

Part II: True or False

1. $\frac{1}{a+b} = \frac{1}{a} + \frac{1}{b}$ T F

2. $-a(4+x) = -4a + xa$ T F

3. $\sqrt{x^2 + 16} = x + 4$ T F

4. $\frac{(x+1)(3x+27) + x^3}{x+1} = 3x + 27 + x^3$ T F

5. $2\sqrt{x+y} = \sqrt{4x+4y}$ T F

6. $\frac{\left(\frac{1}{a}\right)}{\left(\frac{1}{b}\right)} = \frac{b}{a}$ T F

7. $\frac{\left(\frac{1}{a}\right)}{(b)} = \frac{1}{ab}$ T F

8. $x^2 - y^2 = (x-y)(x+y)$ T F