



Seatwork: Substitution

Example:

Evaluate the following if $x = 4$, $y = 5$: $\frac{x^2 + xy}{2}$

Substitute the variables:

$$\frac{x^2 + xy}{2} = \frac{(4)^2 + (4)(5)}{2}$$

Simplify:

$$\begin{aligned} &= \frac{(4)^2 + (4)(5)}{2} \\ &= \frac{16 + 20}{2} \\ &= \frac{36}{2} \\ &= \underline{18} \end{aligned}$$

Direction: Substitute and evaluate the following if $a = 2$, $b = -3$, and $c = 4$

1) $\frac{12}{a} + 3 =$

6) $c^2 - c - 1 =$

2) $\frac{5(b-4)}{2} =$

7) $3b^2 + 7b - 4 =$

3) $ab + b^2 =$

8) $\frac{a-b}{a+b} =$

4) $2a - \frac{12}{c} =$

9) $\frac{a^2 - b^2}{a^2 + b^2} =$

5) $b^2 + c^3 =$

10) $\frac{1}{b} + \frac{1}{c} =$