

Accuplacer Study Modules

TOPIC: Evaluating Algebraic Expressions

Instructions: Evaluate each expression using the given values for the variable(s)

<p>1. $5x + 9 - 4y + 3x - 10$ if $x = -3$ and $y = 4$</p> <p>$5(-3) + 9 - 4(4) + 3(-3) - 10$ (Substitute)</p> <p>$-15 + 9 - 16 - 9 - 10$ (multiply)</p> <p>$-6 - 16 - 9 - 10$ (Add and subtract from left to right)</p> <p>$-22 - 9 - 10$</p> <p>$-31 - 10$</p> <p>-41 solution</p>	<p>2. $4(x - 3) + 7(x + 5)$ if $x = \frac{1}{2}$</p> <p>$4(\frac{1}{2} - 3) + 7(\frac{1}{2} + 5)$ (Substitute)</p> <p>$4(-\frac{5}{2}) + 7(\frac{11}{2})$ (Parentheses multiply)</p> <p>$-\frac{20}{2} + \frac{77}{2}$ (Add)</p> <p>$\frac{57}{2}$ or $28\frac{1}{2}$ solution</p>
<p>3. $3(x - 2)^2 - 4(x + 3)$ if $x = -7$</p> <p>$3(-7 - 2)^2 - 4(-7 + 3)$ (Substitute)</p> <p>$3(-9)^2 - 4(-4)$ (Parentheses)</p> <p>$3(81) - 4(-4)$ (Exponents)</p> <p>$243 + 16$ (Multiply)</p> <p>(Add)</p> <p>259 solution</p>	<p>4. $10x - 5y + 3(x + 2y + 7)$ if $x = 0.5$ and $y = 6$ (Substitute)</p> <p>$10(0.5) - 5(6) + 3(0.5 + 2(6) + 7)$ (parentheses)</p> <p>$10(0.5) - 5(6) + 3(0.5 + 12 + 7)$</p> <p>$10(0.5) - 5(6) + 3(19.5)$ (Multiply)</p> <p>$5 - 30 + 58.5$ (Add)</p> <p>33.5 solution + subtract L.T.O.R.</p>