

Algebra 2/Trig Weekly Tune-Up

NO CALCULATORS
SHOW WORK

<p>1.1 Solve & graph: $-4 \leq 2n - 1 \leq 6$</p>	<p>2.1 Write the equation of the line thru (5, -2) & (4, 3)</p>	<p>2.2 If x and y vary directly and $x=45$ when $y=3$, find x when $y=14$.</p>
<p>3.1 Solve by graphing: $3(x+4) - y = 5$ $6(x+2) + 4 = 2(y+1)$</p>	<p>3.2 Determine the feasible region for $x \geq 0$ $y \geq 0$ $3x - y \geq 6$ $2x + 4y \geq 8$</p>	<p>4.1 Solve using inverses $\begin{bmatrix} 4 & 2 \\ -1 & 3 \end{bmatrix} X = \begin{bmatrix} 6 & 4 & 0 \\ 1 & -2 & 3 \end{bmatrix}$</p>
<p>5.1 Graph $y \leq 3x^2 + 2x - 4$</p>	<p>5.2 A boat travels 120 miles upstream against a current of 2 mph, turns around and comes back again. The entire trip takes 11 hours, find the boat's speed.</p>	<p>5.3 Complete the square to solve: $4x^2 - 8x + 3 = 0$</p>
<p>6.1 Divide using long division $(10x^3 + 3x^2 - 2x + 3) \div (2x - 1)$</p>	<p>6.2 Factor completely $(x^4 - 16)(x^3 + 8)$</p>	<p>7.1 Simplify: $\frac{(x^{\frac{1}{2}}y^2)^{\frac{1}{3}}}{x^{\frac{5}{2}}}$</p>
<p>7.2 If $f(x) = 4x^2$ and $g(x) = 2x + 1$, find $f(g(-2))$</p>	<p>9.1 Simplify $\frac{x^2 + x - 3}{x^2 - 12x + 32} + \frac{3x}{x - 8}$</p>	<p>9.2 Solve $\frac{6x}{x+4} + 4 = \frac{2x+2}{x-1}$</p>

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<p>1.1 Evaluate: $6 + 2 3 - 4 + 16 \div 8(2)$</p>	<p>1.2 Solve: $\frac{2}{3}(x + 10) - 14 = \frac{3}{4}(x - 1)$</p>	<p>2.1 Graph $y = \frac{3}{4} x + 3 + 1$</p>
<p>3.1 Solve by graphing: 2.0 $y \geq 3x - 4$ $2x + 3y \leq 6$</p>	<p>4.1 Solve using matrices: 2.0 $5x - y = 16$ $3x + 2y = 7$</p>	<p>4.1 Solve for y using Cramer's Rule: $3x - 4y = 5$ $2x + 7y = 6$</p>
<p>5.1 Factor and solve: 4.0 $6x^2 - 13x - 5 = 0$</p>	<p>5.2 If $A = 2 - 3i$ & $B = -1 + 4i$ 6.0 find $A - B$ and $\frac{A}{B}$</p>	<p>5.3 Determine the nature of the roots without solving: $y = 4x^2 + 3x - 2$</p>
<p>5.4 Write the equation of the parabola congruent to 9.0 $y = \frac{4}{3}(x + 2) - 1$ shifted left 3 units and up 5 units.</p>	<p>6.1 Simplify 7.0 $\frac{(5x^{-3}y^{-2})^{-1}(4x^{-2})^3}{(3xy^2)^{-2}}$</p>	<p>6.2 Write a polynomial with 10.0 zeros: $-3, \frac{2}{3}, 2i$</p>
<p>7.1 Construct a box-and-whisker plot for 21, 24, 27, 28, 31, 38, 40, 42</p>	<p>7.2 Find the inverse of 24.0 $f(x) = 3\sqrt{2x + 1}$</p>	<p>9.1 Multiply/Divide 7.0 $\frac{2x^2 - 12x}{x^2 - 7x + 6} \div \frac{2x}{3x - 3} \cdot \left(\frac{x^2 - 4x + 3}{x + 1} \right)^{-1}$</p>

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