

# Algebra and Geometry Review 1

<p>1. Solve the equation:</p> $2x + 5(3x - 4) = 14$	<p>2. The two legs of a right triangle are 9 and 40. How long is the third side?</p>
<p>3. Factor:</p> $2x^2 - 5x - 12$	<p>4. Find the distance between the points <math>(-2, 5)</math> and <math>(3, 7)</math>. Write your answer in simplest radical form.</p>
<p>5. Solve the system of equations.</p> $\begin{aligned} 2x + 3y &= 0 \\ \underline{x - 2y} &= \underline{-7} \end{aligned}$	<p>6. Find the area of a rectangle with a perimeter of 32 if its length is two larger than its width.</p>
<p>7. Write the equation of the line that has a slope of <math>-2</math> and goes through the point <math>(-3, 4)</math>.</p>	<p>8. If a triangle has a base of 7 and a height of 4, what is its area?</p>
<p>9. Add the radicals. Write your answer in simplest radical form.</p> $\sqrt{8} + \sqrt{32}$	<p>10. Find the measure of <math>\angle DFE</math> if <math>\widehat{DE}</math> measures <math>30^\circ</math>.</p> 