

<p>1. Which angle represents the <i>greatest</i> amount of rotation?</p> <p>(1) <math>105^\circ</math>                      (2) <math>\frac{3\pi}{5}</math> radians</p> <p>(3) 1.8 radians</p> <p>(4) a central angle that intercepts a <math>\frac{3\pi}{4}</math> - inch arc in a circle whose radius is 1.5 in.</p>	<p>2. Find the radian measure of an angle of <math>106^\circ</math>.</p>	<p>1. _____</p> <p>2. _____</p>
<p>3. A wheel whose radius measures 10 inches is rotated. If a point on the circumference of the wheel moves a distance of 5 feet, what is the radian measure of the angle through which the point travels?</p>		<p>3. _____</p>
<p>4. The equation <math>f(t) = 100(0.98)^t</math> represents the temperature in degrees Celsius of a cup of tea <math>t</math> minutes after it was poured. To the nearest hundredth of a minute, how long would it take before the temperature of the tea reached <math>90^\circ</math>? [ <i>Only an algebraic solution will be accepted.</i> ]</p>		<p>4. _____</p>
<p>5. Solve algebraically for <math>x</math>: <math>2(b^x)^{\frac{1}{2}} = (16b)^{\frac{1}{4}}</math></p>	<p>6. Solve algebraically for <math>x</math>: <math>\log_{(x-1)} 9 = 2</math></p>	<p>5. _____</p> <p>6. _____</p>
<p>7. Solve for <math>x</math>: <math>(3 + 2i) + (4 + xi) = 7 - 5i</math></p>	<p>8. If <math>\log_a 3 = m</math> and <math>\log_a 5 = p</math>, which of the following could represent <math>\log_a 75</math>?</p> <p>(1) <math>m + p^2</math>                      (3) <math>m + 2p</math></p> <p>(2) <math>2mp</math>                              (4) <math>mp^2</math></p>	<p>7. _____</p> <p>8. _____</p>