

	MONDAY - Jan 18	TUESDAY - Jan 19	WEDNESDAY - Jan 20	THURSDAY - Jan 21								
UNIT 1	<p>Find the value of x and justify your answer:</p> $2x+10 = 86+x$ $\begin{array}{r} 2x+10 = 86+x \\ -x \quad -x \\ \hline x+10 = 86 \\ -10 \quad -10 \\ \hline x = 76 \end{array}$ <p><u>x = 76</u> because alternate exterior angles are congruent</p>	<p>Triangle ABC has vertices A (0, 2), B (4, 4), and C (-1, 4). What are the vertices of its image with a scale factor of 4? x4</p> <p>A' = <u>(0, 8)</u> B' = <u>(16, 16)</u> C' = <u>(-4, 16)</u></p>	<p>What is the center of dilation:</p> <p><u>(-4, 1)</u></p>	<p>Are the triangles similar? Justify your answer by showing your work.</p> <p>$\frac{10}{5} = 2$ $\frac{12}{6} = 2$ $\frac{18}{9} = 2$</p> <p>$\triangle ABC \sim \triangle QPR$ by the SSS Sim. Th.</p>								
UNIT 2	<p>Find the missing side:</p> $\sin 61 = \frac{x}{5}$ $x = 5 \sin 61$ <p><u>x = 4.373</u></p>	<p>Find the tree's height.</p> $\tan 50 = \frac{x}{90}$ $x = 90 \tan 50$ <p><u>x = 107.258</u></p>	<p>Find the missing angle.</p> $\sin \theta = \frac{4}{7}$ $\theta = \sin^{-1}(4/7)$ <p><u>$\theta = 34.850^\circ$</u></p>	<p>How far apart are the telephone poles?</p> $a^2 + b^2 = c^2$ $50^2 + x^2 = 90^2$ $2500 + x^2 = 8100$ $x^2 = 5600$ $x = \sqrt{5600} = 74.833 \times 2 = 149.666 \text{ ft}$ <p><u>149.666 ft</u></p>								
UNIT 3	<p>In the circle shown, BC is the diameter and $m\widehat{AB} = 124^\circ$. What is the measure of $\angle ABC$?</p> $\frac{56}{2} = 28$ <p><u>$m\angle ABC = 28^\circ$</u></p>	<p>Find the area of the shaded region:</p> $A = \frac{404\pi}{9} \text{ or } 161.967 \text{ m}^2$	<p>Find the Pyramid's Volume:</p> $V = \frac{1}{3} Bh$ $= \frac{1}{3} lwh$ $= \frac{1}{3} (3)(3)(5) = 15$ <p><u>V = 15 yd³</u></p>	<p>Find the volume of the sphere:</p> $V = \frac{4}{3} \pi r^3$ $= \frac{4}{3} \pi (2)^3$ $= \frac{32\pi}{3} = 33510 \text{ ft}^3$								
UNIT 4	<p>Find the product of:</p> $(x^2 - 3x + 7)(4x - 8)$ <table border="1"> <tr> <td>4x</td> <td>4x³</td> <td>12x²</td> <td>28x</td> </tr> <tr> <td>-8</td> <td>-8x²</td> <td>24x</td> <td>-56</td> </tr> </table> <p><u>$4x^3 - 20x^2 + 52x - 56$</u></p>	4x	4x ³	12x ²	28x	-8	-8x ²	24x	-56	<p>Which expression has a value that is a rational number?</p> <p>A. $\sqrt{10} + 11$ I B. $3(\sqrt{3} + \sqrt{5})$ I C. $\sqrt{9} + \sqrt{16}$ 7 R D. $\sqrt{7} + 2$ I</p>	<p>Simplify the expression $\sqrt{27} - \sqrt{12}$. Show all work.</p> <p><u>$\sqrt{3}$</u></p>	<p>Find the Volume:</p> $(x+4)(x^2 + 8x + 16)$ $= x^3 + 8x^2 + 16x + 4x^2 + 32x + 64$ <p><u>$x^3 + 12x^2 + 48x + 64$</u></p>
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