

Analytic Geometry  
Weekly EOC Review Homework

Name: Hirsch

	MONDAY – Jan 4	TUESDAY – Jan 5	WEDNESDAY – Jan 6	THURSDAY – Jan 7
UNIT 1		<p>How can these triangles be proven to be congruent?</p> <p>SAS cong. Th.</p>	<p>In the triangle shown, <math>\overline{AB} \parallel \overline{DE}</math>. What is the length of <math>\overline{CD}</math>?</p> $\frac{x}{3} = \frac{5}{2}$ $2x = 15$ $x = 7.5$	<p>Justify the following:</p> <p><math>\angle HGK \cong \angle IJH</math> <math>\angle IKG \cong \angle IHG</math> corresponding angles are congruent</p>
UNIT 2		<p>Given <math>\triangle HJ \sim \triangle KLM</math> and <math>\sin(\angle J) = 2/9</math>, find <math>\sin(\angle M)</math></p> <p>same position so same angle measure so same ratio.  <math>\sin M = \frac{2}{9}</math></p>	<p>Find the missing side:</p> $\tan \theta = \frac{9}{x}$ $\tan 44^\circ = \frac{9}{x}$ $x = \frac{9}{\tan 44^\circ}$ $x = 9.320$	<p>Find the value of theta.</p> $\cos \theta = \frac{20}{25}$ $\cos \theta = \frac{4}{H}$ $\theta = \cos^{-1}\left(\frac{20}{25}\right)$ $\theta = 36.870^\circ$
UNIT 3		<p>Find the value of x.</p> <p><math>21x - 2 + 38x + 5 = 180</math></p> $59x + 3 = 180$ $59x = 177$ $59 \cancel{x} \quad 59 \quad x = 3$	<p>Find the area of the sector which has a <math>145^\circ</math> angle.</p> $\frac{145}{360} \cdot \pi (12)^2$ $A = 58\pi \text{ yd}^2$ $\text{or } 182.212 \text{ yd}^2$	<p>Find the volume of the slanted cylinder:</p> $V = B h$ $V = \pi r^2 h$ $V = \pi (5)^2 (12)$ $V = 300\pi \text{ m}^3$ $V = 942.478 \text{ m}^3$
UNR		<p>Find the difference:</p> $(8x^2 - 7x + 8) - (3x^2 + 7x - 2)$ $8x^2 - 7x + 8$ $- 3x^2 - 7x + 2$ $\hline$ $5x^2 - 14x + 10$	<p>Find the Perimeter:</p> <p>Add all sides</p> $3x + 5 \quad 3x + 5$ $6x - 2$ $18x + 6 \text{ units}$	<p>Find the Area:</p> $x^2 + 2x + 3$ $\boxed{x+4}$ $(x+4)(x^2 + 2x + 3)$ $x^3 + 2x^2 + 3x$ $4x^2 + 8x + 12$ $(x^3 + 6x^2 + 11x + 12) \text{ units}^2$

