

Secondary 3 Honors Unit 1 Review

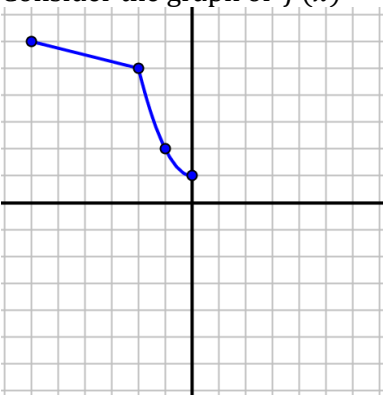
PreCalculus Book Problems

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41, 43, 46, 48, 51, 61, 69, 81-84, 92, 95, 97, 101, 106, 107, 121, 132, 133, 134

You may use a calculator for the following questions:

Evaluate	2) Convert $0.\overline{145}$ to fraction	4) Store 5.13 to x and compute $\sqrt{\frac{3+2x}{5x}} + (2x)^{2/3}$
1a) $\sqrt[7]{1005}$	3) Write $7/22$ as exact decimal	
b) $103^{5/8}$		

<p>5) Enter the following into your calculator</p> $y_1 = 5x - 13 - 6$ $y_2 = -3x^2 + 2x + 7$ <p>Evaluate to 3 decimal place accuracy</p> <p>a) $y_1(1.5)$ b) $y_1(-23)$ c) $y_2(3)$ d) Find the max/min of y_2 e) Find the x-intercepts of y_2 f) Find the coordinates of the point(s) of intersection of y_1 and y_2. g) Complete the table using your calculator</p> <table border="1" style="margin-left: 20px; border-collapse: collapse; text-align: center;"> <tr> <td style="padding: 2px 10px;">x</td> <td style="padding: 2px 10px;">1.5</td> <td style="padding: 2px 10px;">1.7</td> <td style="padding: 2px 10px;">1.9</td> <td style="padding: 2px 10px;">2.1</td> <td style="padding: 2px 10px;">2.3</td> </tr> <tr> <td style="padding: 2px 10px;">y_2</td> <td style="padding: 2px 10px;"></td> <td style="padding: 2px 10px;"></td> <td style="padding: 2px 10px;"></td> <td style="padding: 2px 10px;"></td> <td style="padding: 2px 10px;"></td> </tr> </table> <p>h) Are y_1 and y_2 functions? i) Are y_1 and y_2 one-to-one?</p>	x	1.5	1.7	1.9	2.1	2.3	y_2						<p>6) Consider the graph of $f(x)$</p>  <p>a) Give the domain and range of f b) Graph $f^{-1}(x)$ c) Give the domain and range of f^{-1} d) Graph $\frac{1}{2}f(x - 2)$ e) Graph $f(-2x) - 3$</p>
x	1.5	1.7	1.9	2.1	2.3								
y_2													

Do NOT use a calculator for the following questions:

<p>7) Find the corresponding point for $(-2, 5)$ reflected about the:</p> <p>a) y-axis b) origin</p>	<p>8) $f(x) = 10$, $g(x) = \frac{1}{x}$, $h(x) = x^2 + 1$</p> <p>a) $(g \circ f)(x)$ b) $(g \circ h)(3)$ c) $(g \circ h)(x)$ d) $(f \circ h \circ g)\left(\frac{1}{2}\right)$ e) $(f - g + h)(x)$ f) $\left(\frac{h}{fg}\right)(x)$ g) $h(-2)$ h) $h(x + 1)$</p>
<p>9) Determine whether the following functions are even, odd, or neither:</p> <p>a) $g(x) = \frac{-1}{2}x^3 + 4x$ b) $f(x) = \sqrt{25 - x^2}$ c) $h(x) = x^2 - x$</p>	
<p>10) Given $f(x) = x^2 - 4$ and $g(x) = \sqrt{x + 4}$, find the domain of $f(g(x))$</p>	
<p>11) Use the graph of $f(x)$ and $g(x)$ to graph $(fg)(x)$</p>	