Ch. 2 - Transformations

By the end of the unit, it is expected that you will:	© EXCELLENT	COK OVER	⊖ WHAT??
Understand the relationship between two variables by defining the following: Relations, Functions, One-to-One Functions	EAUELLENI	LUUKUVEK	W11A1 ((
Are able to use the Vertical line test and Horizontal Line test			
Be able to use the Sum, Difference, Product and Quotients of Functions to compute expressions			
QUESTIONS:			
Compute each expression given the functions <i>f</i> and <i>g</i> are defined as follows: $f(x) = 2x + 1$, $g(x) = x^2 - 2x + 1$			
a) $(f+g)(x)$ b) $(f - g)(x)$ c) $(fg)(x)$ d) $f/g(x)$			
Understand and perform the composition function $f \circ g$ Decompose a composite function.			
QUESTIONS:			
1. If $f(x) = 1 - x^2$, $g(x) = 2x + 3$, find			
a) $(f \circ g)(x)$ b) $(g \circ f)(x)$			
2. Find two functions $f(x)$ and $g(x)$ such that $h(x) = (f \circ g)(x)$			
a) $h(x) = (2x-3)^2$			
 Understand how to apply the following TRANSFORMATIONS to the graphs of basic functions: translations – vertical and horizontal shifts reflections of the graph about the x-axis and y-axis compressions and expansions of the graph 			

Section and page number	Mandatory questions
2.1 p. 53	1, 2, 3
2.2 p. 57	1 odd, 2 odd, 3 odd, 4bc, 5,
2.3 p. 66	1 odd, 2 odd, 3 odd, 4 odd, 5 odd, 6a, 7a,d,g,k, 10a,d
2.4 Translations p. 79-82	1ace, 2abc, 9de, 10ade Worksheet #1 solutions on-line basimath.weebly.com
2.4 Reflections and Inverse p. 79-82	1bdfgh, 2defgh, 9abcf, 10bcf, 11, 12, 13 Worksheet #2 solutions on-line basimath.weebly.com
2.4 Expansions & Compressions p. 83-84	18abcd, 19 Worksheet #3 solutions on-line basimath.weebly.com
2.4 Reciprocal Functions p. 82-83 2.5 Inverse p. 90-93	15, 16, 17 1, 3a,c, 6a,c,e, 7, 9, 10
2.6 Combined Transformations p.97-99	2acegi, 3ace, 4, 5ab, 6ab, 7
Ch. Review p. 100-112	1-7, 10-12, 15-18, 22, 28, 29, 32, 34, 39-41, 44, 47-51, 53, 55, 57-59, 61, 64-67