Sec 1.7 Combinations of functions

We have looked so far at:
- -parent functions
- -transformation of functions
- -inverse functions
- -piecewise functions

Now we want to see how two or more functions can be combined using **addition**, **subtraction**, and **multiplication**.

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Example:

$f(x) = 2x^2$

$g(x) = 3x + 4$

x	$f(x) = 2x^2$	$g(x) = 3x + 4$	f(x)+g(x)
-2			
-1			
0			
1			
2			

How can we rewrite the sum of functions without the data table?

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Sketch the graphs sum of functions

What does the sum look like?

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The same process applies to subtraction and multiplication.

Rule:
For $f + g$, add the y-values
For $f - g$, subtract the y-values (order matters)
For fg, multiply the y-values

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Examples:

1/ f(x)=2x + 5

Find $h(x) = f + g$

2/ g(x)= 3x

Find $h(x) = fg$

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Homework
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Start Chapter 1 Review
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