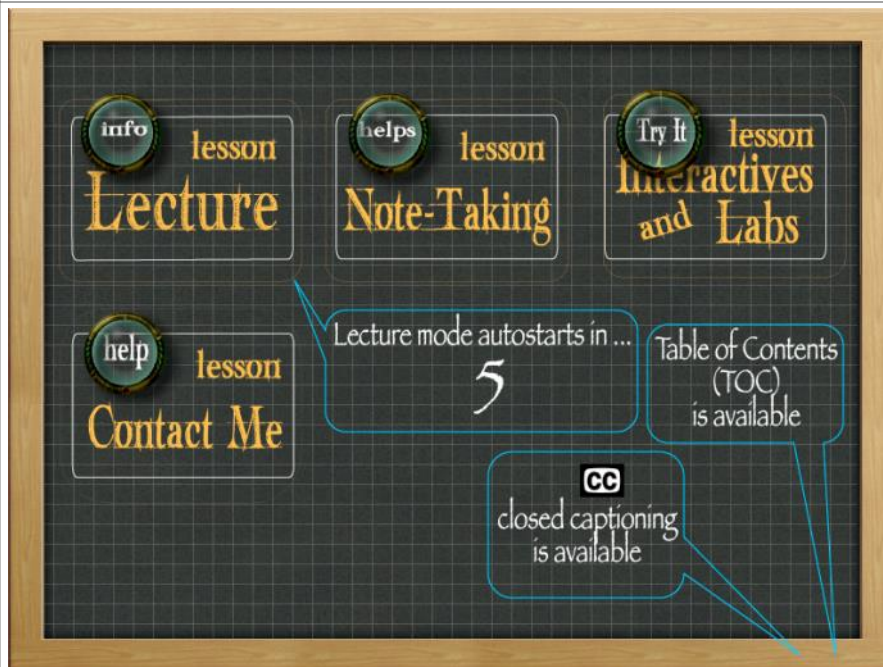


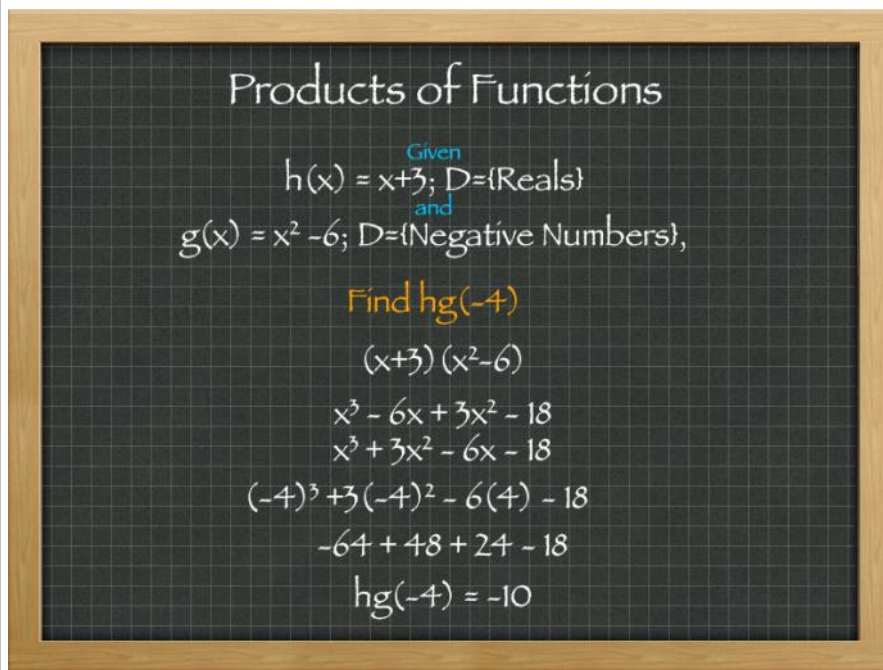
Products of Functions

Friday, November 15, 2013
10:37 AM

Slide



Notes



Like the summed function lesson, this one has a longer method that keeps your variable for as long as possible and a shorter solution method where you immediately substitute your variables in.

Let's take a look at the method that hangs on to your variable for as long as possible.

We will multiply the two expressions together to get a simplified expression.

Then we will substitute in the value for the variable and solve.

Products of Functions

$$h(x) = x+3; D=\{\text{Reals}\}$$

Given
and

$$g(x) = x^2 - 6; D=\{\text{Negative Numbers}\},$$

Find $hg(-4)$

$$\begin{aligned}(x+3)(x^2-6) \\ (-4+3)((-4)^2-6) \\ (-1)((16)-6) \\ (-1)(10) \\ hg(-4) = -10\end{aligned}$$

In this one, we set the expressions up to be multiplied with the value for the variable plugged in to place.

We then solve.

Products of Functions

$$h(x) = x+3; D=\{\text{Reals}\}$$

Given
and

$$g(x) = x^2 - 6; D=\{\text{Negative Numbers}\},$$

Find $hg(4)$

$$\begin{aligned}(x-3)(x^2-6) \\ (4-3)((4)^2-6) \\ (1)((16)-6) \\ (1)(10) \\ hg(4) = 10\end{aligned}$$

Try It

Congratulations!
You have completed
this topic

Give us feedback about
this lesson if you wish...

