DIRECTIONS

In this activity, we are going to look at several equations and your job is to find the antiderivative. Based on the rules you know up to this point, we need to determine which antiderivatives "work" and which "don't work." For each problem below, work with a partner to find the antiderivative. If you can find it, explain how you got your answer. If you cannot determine the antiderivative, that's OKAY. Just select "doesn't work" and try to explain why.

Find the antiderivative:	Works?	Doesn't work?
1. $y' = \sec(x)\tan(x)$		
2. $y' = 4x^2 - 6x + 1$		
3. $y' = -2\cos(1 + 2x)$		
4. $y' = e^x$		
5. $y' = \frac{1}{2}(3x^2 + 2)^{-\frac{1}{2}}(6x)$		

6. $y' = \cos(x)\, e^{\sin(x)}$		
7. $y' = 1/x$		
8. $y' = 3(4 - 6x^2)^2(-12x)$		