A very short review of derivatives

Describe in words what a derivative is:

_____

_____

What is the mathematical definition of the derivative of a function f at a point a?

$f'(a) =$ _____

Some derivatives you should know: (K a constant)

$\frac{d}{dx}(x^n) =$ _____ $\frac{d}{dx}(\sin(x)) =$ _____

$\frac{d}{dx}(e^{Kx}) =$ _____ $\frac{d}{dx}(\cos(x)) =$ _____

$\frac{d}{dx}(\ln(k|x|)) =$ _____ $\frac{d}{dx}(\tan(x)) =$ _____
$(K>0)$

$\frac{d}{dx}(\arcsin(x)) =$ _____ $\frac{d}{dx}(\arctan(x)) =$ _____

You may also want to review the product rule and the chain rule.

The Fundamental Theorem of Calculus

Describe, in a few words, what the theorem says:

State the theorem in mathematical symbols

1)

OR 2)