

$$\frac{d}{dx} [\sin x] =$$

$$\frac{d}{dx} [\sin(AT)] =$$

AT = Anything

$$\frac{d}{dx} [\sin x] = \cos x$$

$$\frac{d}{dx} [\sin(AT)] = \cos(AT) \cdot \frac{d}{dx} [AT]$$

$$\frac{d}{dx} [\cos x] =$$

$$\frac{d}{dx} [\cos(AT)] =$$

AT = Anything

$$\frac{d}{dx} [\cos x] = -\sin x$$

$$\frac{d}{dx} [\cos(AT)] = -\sin(AT) \frac{d}{dx} [AT]$$

$$\frac{d}{dx} [\tan x] =$$

$$\frac{d}{dx} [\tan(AT)] =$$

AT = Anything

$$\frac{d}{dx} [\tan x] = \sec^2 x$$

$$\frac{d}{dx} [\tan(AT)] = \sec^2(AT) \frac{d}{dx} [AT]$$

$$\frac{d}{dx} [\cot x] =$$

$$\frac{d}{dx} [\cot(AT)] =$$

AT = Anything

$$\frac{d}{dx} [\cot x] = -\csc^2 x$$

$$\frac{d}{dx} [\cot(AT)] = -\csc^2(AT) \frac{d}{dx} [AT]$$

$$\frac{d}{dx} [\sec x] =$$

$$\frac{d}{dx} [\sec(AT)] =$$

AT = Anything

$$\frac{d}{dx} [\sec x] = \sec x \tan x$$

$$\frac{d}{dx} [\sec(AT)] = \sec(AT) \tan(AT) \frac{d}{dx} [AT]$$

$$\frac{d}{dx} [\csc x] =$$

$$\frac{d}{dx} [\csc(AT)] =$$

AT = Anything

$$\frac{d}{dx} [\csc x] = -\csc x \cot x$$

$$\frac{d}{dx} [\csc(AT)] = -\csc(AT) \cot(AT) \frac{d}{dx} [AT]$$

How do you  
find a  
horizontal  
tangent?

←————→ horizontal  
tangent.....

$$m=0$$

So

set  $f'(x)=0$  and solve for  $x$ .