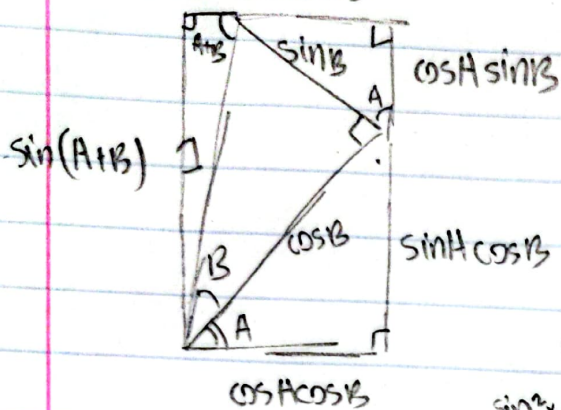


$$\cos(A+B) \sin A \sin B$$



$$\sin(A+B) = \sin A \cos B + \cos A \sin B$$

$$\sin(2A) = 2 \sin A \cos A$$

$$\cos(A+B) = \cos A \cos B - \sin A \sin B$$

$$\cos(2A) = \cos^2 A - \sin^2 A$$

$$= 2 \cos^2 A - 1$$

$$= 1 - \sin^2 A$$

trig identity
 $\sin^2 x + \cos^2 x = 1$
 $\sec^2 x$

rewritten: $\cos^2 A = \frac{\cos(2A) + 1}{2}$

$$\sin^2 x + \cos^2 x = 1$$

$$\tan^2 x + 1 = \sec^2 x$$

$$\cot^2 x + 1 = \csc^2 x$$

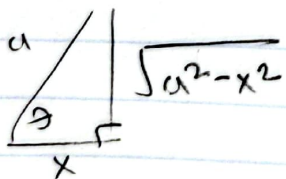
$$\sin^2 A = \frac{1 - \cos(2A)}{2}$$

$f(x)$	$f'(x)$
$\tan x$	$\sec^2 x$
$\sec x$	$\sec x \tan x$
$\csc x$	$-\csc x \cot x$
$\cot x$	$-\csc^2 x$

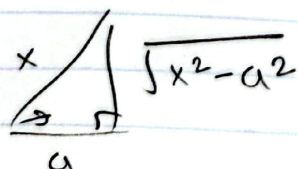
note:

$$\int \sec x \left(\frac{\sec x + \tan x}{\sec x + \tan x} \right) dx$$

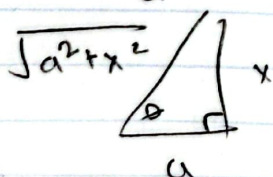
$$= \ln |\sec x + \tan x| + C$$



$$\text{let } x = a \sin \theta$$



$$\text{let } x = a \sec \theta$$



$$\text{let } x = a \tan \theta$$