

LEMBAR KERJA PESERTA DIDIK

Materi : Turunan Fungsi Trigonometri

Nama :

Kelas : XII

Kelas :



Masih Ingatkah ?

Fungsi	Turunan
$f(x) = \sin x$	$f'(x) = \dots$
$f(x) = \cos x$	$f'(x) = \dots$



Mari Mencoba !

Dengan menggunakan sifat-sifat turunan, buktikan rumus berikut :

1. Jika $y = f(x) = \tan x$, maka $y' = f'(x) = \operatorname{cosec}^2 x$
2. Jika $y = f(x) = \sec x$, maka $y' = f'(x) = \sec x \tan x$

Fungsi	Turunan
	Ingat...!
	$y' = \frac{u'v - uv'}{v^2}$
$y = f(x) = \tan x$	$u = \sin x \rightarrow u' = \dots$
	$v = \dots \rightarrow v' = -\sin x$
$y = f(x) = \frac{\sin x}{\dots}$	$y' = \frac{(\dots) \cos x - (\dots)(-\sin x)}{(\dots)^2}$
	$y' = \frac{\dots - \dots}{(\dots)^2}$
	$y' = \frac{\dots}{(\dots)^2} = \dots$

Fungsi	Turunan
	Ingat...!
	$y' = \frac{u'v - uv'}{v^2}$
	$u = 1 \quad \rightarrow \quad u' = \boxed{}$
	$v = \boxed{} \quad \rightarrow \quad v' = -\sin x$
$y = f(x) = \sec x$	$y' = \frac{(\boxed{}) \cos x - (\boxed{})(-\sin x)}{(\boxed{})^2}$
$y = f(x) = \frac{1}{\boxed{}}$	$y' = \frac{\boxed{} - \boxed{}}{(\boxed{})^2}$
	$y' = \frac{\boxed{}}{(\boxed{})^2}$
	$y' = \frac{1}{\boxed{}} \cdot \frac{\boxed{}}{\cos x}$
	$y' = \boxed{} \boxed{}$