



Kegiatan Belajar 1

E-LKPD
MATEMATIKA PEMINATAN
KELAS XII
OLEH
I WAYAN DARMA SANTIKA

Nama : _____

kelas : _____

NO. Abs : _____

SMA NEGERI 1 BEBANDEM

2021

A. Soal

1. Tentukan nilai $\lim_{x \rightarrow \frac{\pi}{4}} \tan x$!
2. Tentukan nilai $\lim_{x \rightarrow \frac{3\pi}{4}} 4 \sin 2x$!
3. Tentukan nilai $\lim_{x \rightarrow \frac{\pi}{4}} (6 \sin x)^2$!
4. Tentukan nilai $\lim_{x \rightarrow 0} \frac{3x}{\sin 5x}$!
5. Tentukan nilai $\lim_{x \rightarrow 0} \frac{\sin 3x}{\tan 5x}$!
6. Tentukan nilai $\lim_{x \rightarrow 0} \frac{3 \tan 4x}{8 \tan 3x}$!
7. Tentukan nilai $\lim_{x \rightarrow 0} \frac{\sin 5x - \sin 3x}{\sin 2x}$!
8. Tentukan nilai $\lim_{x \rightarrow 0} \frac{\sin 3x \tan x}{x \sin x}$!
9. Tentukan nilai $\lim_{x \rightarrow 0} \frac{3x \tan 4x}{\sin^2 5x}$!

B. Penyelesaian

No	Penyelesaian
1	$\lim_{x \rightarrow \frac{\pi}{4}} \tan x = \tan \frac{\pi}{4} = \tan(\dots)^0 = \dots$
2	$\lim_{x \rightarrow \frac{3\pi}{4}} 4 \sin 2x = 4 \sin \frac{3\pi}{2} = 4 \sin (\dots)^0 = \dots$
3	$\lim_{x \rightarrow \frac{\pi}{4}} (6 \sin x)^2 = (6 \sin \frac{\pi}{4})^{\dots} = (6 \sin(\dots)^0)^2 = \frac{(\dots)}{(\dots)}$
4	$\lim_{x \rightarrow 0} \frac{3x}{\sin 5x}$ Diketahui a = ... b = ... Jadi $\lim_{x \rightarrow 0} \frac{3x}{\sin 5x} = \frac{(\dots)}{(\dots)}$
5	$\lim_{x \rightarrow 0} \frac{\sin 3x}{\tan 5x}$ Diketahui a = ... b = ... Jadi $\lim_{x \rightarrow 0} \frac{\sin 3x}{\tan 5x} = \frac{(\dots)}{(\dots)}$
6	$\lim_{x \rightarrow 0} \frac{3 \tan 4x}{8 \tan 3x} = \frac{(\dots)}{8} \lim_{x \rightarrow 0} \frac{\tan 4x}{\tan 3x}$ Diketahui a = ... b = ... maka $\frac{(\dots)}{8} \lim_{x \rightarrow 0} \frac{\tan 4x}{\tan 3x} = \frac{(\dots)}{(\dots)} \frac{(\dots)}{(\dots)} = \frac{(\dots)}{(\dots)}$ jadi $\lim_{x \rightarrow 0} \frac{3 \tan 4x}{8 \tan 3x} = \frac{(\dots)}{(\dots)}$

7	$\lim_{x \rightarrow 0} \frac{\sin 5x - \sin 3x}{\sin 2x} = \lim_{x \rightarrow 0} \frac{\sin 5x}{\sin(\dots)} - \lim_{x \rightarrow 0} \frac{\sin(\dots)}{\sin 2x}$ $= \frac{(\dots)}{(\dots)} - \frac{(\dots)}{(\dots)}$ $= \frac{(\dots)}{(\dots)}$ Jadi $\lim_{x \rightarrow 0} \frac{\sin 5x - \sin 3x}{\sin 2x} = \dots$
8	$\lim_{x \rightarrow 0} \frac{\sin 3x \tan x}{x \sin x} = \lim_{x \rightarrow 0} \frac{\sin 3x}{(\dots)} \cdot \lim_{x \rightarrow 0} \frac{(\dots) x}{\sin(\dots)}$ $= \frac{3}{(\dots)} \cdot \frac{(\dots)}{(\dots)}$ $= (\dots)$ Jadi $\lim_{x \rightarrow 0} \frac{\sin 3x \tan x}{x \sin x} = (\dots)$
9	$\lim_{x \rightarrow 0} \frac{3x \tan 4x}{\sin^2 5x} = \lim_{x \rightarrow 0} \frac{3x}{\sin 5x} \cdot \lim_{x \rightarrow 0} \frac{\tan(\dots)}{(\dots) 5x}$ $= \frac{3}{(\dots)} \cdot \frac{(\dots)}{(\dots)}$ $= \frac{(\dots)}{(\dots)}$ Jadi $\lim_{x \rightarrow 0} \frac{3x \tan 4x}{\sin^2 5x} = \frac{(\dots)}{(\dots)}$
Semat telah mengerjakan tugas	