Kegiatan Belajar 1

E-LKPD

MATEMATIKA PEMINATAN

KELAS XII

OLEH
I WAYAN DARMA SANTIKA

Nama : _____

kelas : _____

NO. Abs : _____

SMA NEGERI 1 BEBANDEM

2021

LIVEWORKSHEETS

A. Soal

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

LIVEWORKSHEETS

B. Penyelesaian

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

LIVEWORKSHEETS

7	$\lim\limits_{x\to 0} \dfrac{\sin 5x - \sin 3x}{\sin 2x} = \lim\limits_{x\to 0} \dfrac{\sin 5x}{\sin(\ \dots\ )} - \lim\limits_{x\to 0} \dfrac{\sin(\ \dots\ )}{\sin 2x}$ $= \dfrac{(\ \dots\ )}{(\ \dots\ )} - \dfrac{(\ \dots\ )}{(\ \dots\ )}$ $= \dfrac{(\ \dots\ )}{(\ \dots\ )}$ Jadi $\lim\limits_{x\to 0} \dfrac{\sin 5x - \sin 3x}{\sin 2x} = \ \dots$
8	$\lim\limits_{x\to 0} \dfrac{\sin 3x \tan x}{x \sin x} = \lim\limits_{x\to 0} \dfrac{\sin 3x}{(\dots)} . \lim\limits_{x\to 0} \dfrac{(\ \dots\ )x}{sin(\dots)}$ $= \dfrac{3}{(\dots)} . \dfrac{(\dots)}{(\dots)}$ $= (\dots)$ Jadi $\lim\limits_{x\to 0} \dfrac{\sin 3x \tan x}{x \sin x} = (\ \dots\ )$
9	$\lim\limits_{x\to 0} \dfrac{3x \tan 4x}{sin^2 5x} = \lim\limits_{x\to 0} \dfrac{3x}{\sin 5x} . \lim\limits_{x\to 0} \dfrac{\tan(\ \dots\ )}{(\ \dots\ )\ 5x}$ $= \dfrac{3}{(\dots)} . \dfrac{(\dots)}{(\dots)}$ $= \dfrac{(\ \dots\ )}{(\ \dots\ )}$ Jadi $\lim\limits_{x\to 0} \dfrac{3x \tan 4x}{sin^2 5x} = \dfrac{(\ \dots\ )}{(\ \dots\ )}$
Semat telah mengerjakan tugas	

LIVEWORKSHEETS