LEMBAR KERJA PERSERTA DIDIK
MATEMATIKA TINGKAT LANJUT
SMAN 1 PALIMANAN

PERTEMUAN KE 5 (LIMA)
LIMIT FUNGSI

Kelompok ke :

Ketua Kelompok :

Anggota 1.

2.

3.

4.

5.

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1. $\lim\limits_{x\to 0} \dfrac{ax}{\sin bx} = \lim\limits_{x\to 0} \dfrac{ax}{\sin bx}$

Jika $x \to 0$ maka $bx \to 0$ dan $ax \to 0$

$$\lim_{x\to 0} \frac{ax}{\sin bx} = \lim_{x\to 0} \frac{ax}{\sin bx} . 1$$

$$= \lim_{x\to 0} \frac{ax}{\sin \boldsymbol{bx}} . \frac{\boldsymbol{bx}}{\quad}$$

$$= \lim_{x\to 0} \frac{ax}{\quad} . \frac{\quad}{\sin bx}$$

$$= \lim_{x\to 0} \frac{\quad}{\quad} . \frac{\quad}{\sin bx}$$

$$= \frac{\quad}{\quad} \lim_{bx\to 0} \frac{\quad}{\sin bx}$$

$$= \frac{\quad}{\quad} .$$

$$\lim_{x\to 0} \frac{ax}{\sin bx} = \frac{\quad}{\quad}$$

2. $\lim_{x\to 0} \frac{\tan ax}{bx} = \lim_{x\to 0} \frac{\tan ax}{bx}$

Jika $x \to 0$ maka $ax \to 0$ dan $bx \to 0$

$$\lim_{x\to 0} \frac{\tan ax}{bx} = \lim_{x\to 0} \frac{\tan ax}{bx} . 1$$

$$= \lim_{x\to 0} \frac{\tan \boldsymbol{ax}}{bx} . \frac{}{\boldsymbol{ax}}$$

$$= \lim_{x\to 0} \frac{\tan \boldsymbol{ax}}{bx} . \frac{}{bx}$$

$$= \lim_{x\to 0} \frac{\tan \boldsymbol{ax}}{} . \frac{}{}$$

$$= \text{——} \lim_{ax\to 0} \frac{\tan \boldsymbol{ax}}{}$$

$$= \text{——} .$$

$$\lim_{x\to 0} \frac{\tan ax}{bx} = \text{——}$$

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3. $\lim_{x\to 0} \frac{\sin ax}{\tan bx} = \lim_{x\to 0} \frac{\sin ax}{\tan bx}$

Jika $x \to 0$ maka $ax \to 0$ dan $bx \to 0$

$$\lim_{x\to 0} \frac{\sin ax}{\tan bx} = \lim_{x\to 0} \frac{\sin ax}{\tan bx} . 1.1$$

$$= \lim_{x\to 0} \frac{\sin \boldsymbol{ax}}{\tan \boldsymbol{bx}} . \frac{}{\boldsymbol{ax}} . \frac{\boldsymbol{bx}}{}$$

$$= \lim_{x\to 0} \frac{}{} . \frac{\sin ax}{} . \frac{}{\tan bx}$$

$$= \lim_{x \to 0} \text{———} \cdot \frac{\sin ax}{\text{———}} \cdot \frac{\text{———}}{\tan bx}$$

$$= \text{——} \cdot \lim_{ax \to 0} \frac{\sin ax}{\text{———}} \cdot \lim_{bx \to 0} \frac{\text{———}}{\tan bx}$$

$$= \text{——} \cdot \quad \cdot$$

$$\lim_{x \to 0} \frac{\sin ax}{\tan bx} = \text{——}$$