SMA NEGERI DARMARAJA

Lembar Kerja Peserta Didik (LKPD)

Welcome To

MATEMATIKA WAJIB

LIMIT FUNGSI



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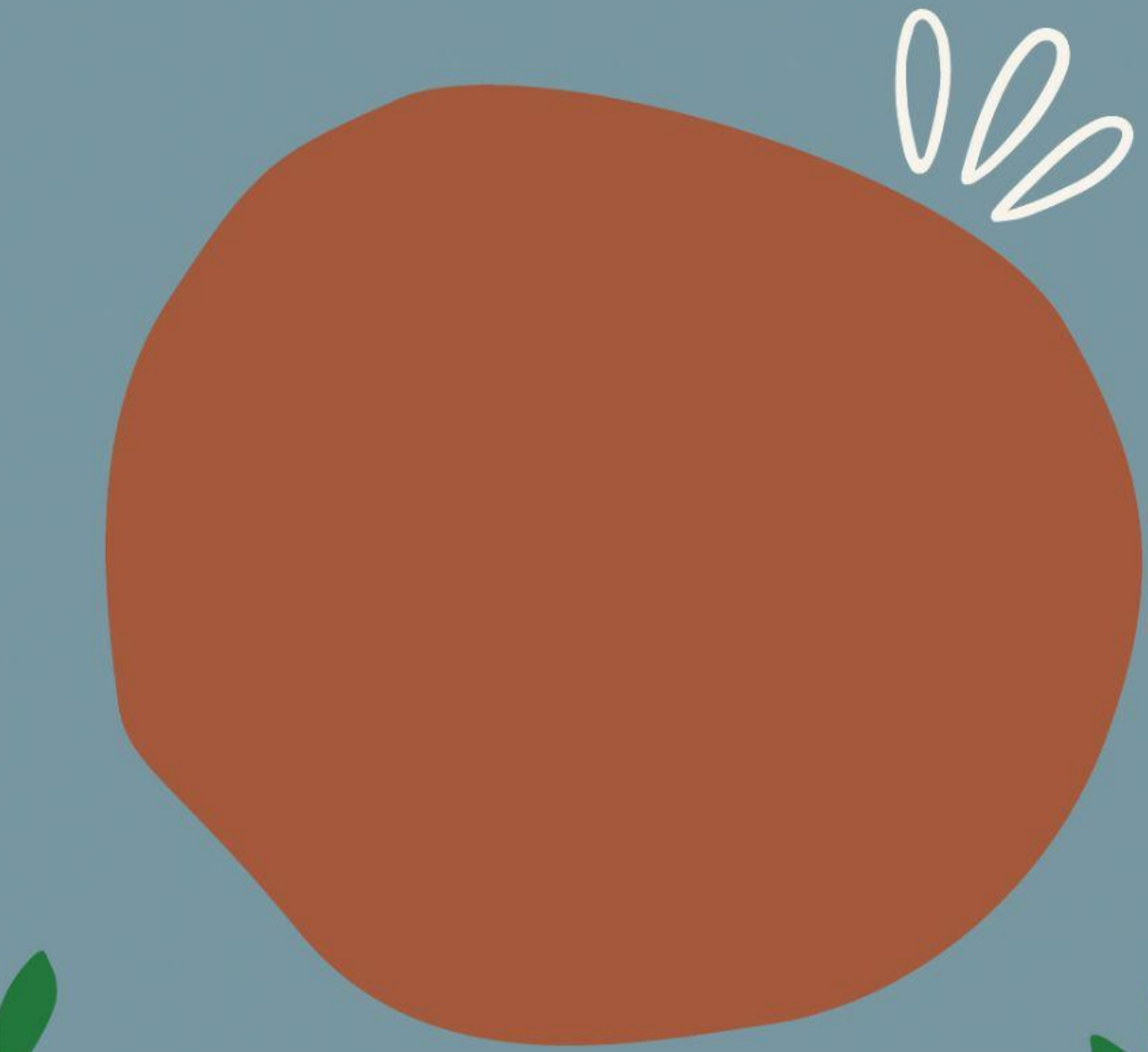
NAMA :

KELAS :

XI

LIVEWORKSHEETS

Kegiatan Awal



MARI KITA AMATI

LIVEWORKSHEETS

LIMIT TAK HINGGA

$$\lim_{x\to\infty}\frac{ax^m+bx^{m-1}+cx^{m-2}+\ldots}{px^n+qx^{n-1}+rx^{n-2}+\ldots}=\begin{cases}0, & \text{untuk } m<n\\ \frac{a}{p}, & \text{untuk } m=n\\ \infty, & \text{untuk } m>n\end{cases}$$

Rumus Cepat Mencari Nilai Limit Tak Hingga

$$\lim_{x\to\infty}\left(\sqrt{ax^2+bx+c}-\sqrt{px^2+qx+r}\right)=\begin{cases}\infty, \text{ untuk } a>p\\ \frac{b-q}{2\sqrt{a}}, \text{ untuk } a=p\\ -\infty, \text{ untuk } a<p\end{cases}$$



Talk to the teacher if you have a problem



$$\lim_{x\to\infty}\frac{f(x)}{g(x)}=0, \quad m<n$$

$$\lim_{x\to\infty}\frac{f(x)}{g(x)}=\frac{a}{p}, \quad m=n$$

$$\lim_{x\to\infty}\frac{f(x)}{g(x)}=+\infty, \quad m>n \ dan \ a,p \ sama \ tanda$$

$$\lim_{x\to\infty}\frac{f(x)}{g(x)}=-\infty, \quad m>n \ dan \ a,p \ beda \ tanda$$

LIVEWORKSHEETS

Tentukan nilai limit dari soal berikut :

1. $\lim_{x\to\infty} \dfrac{6x^3+4x+6}{4x^2+2x^3-3x} = \square$

2. $\lim_{x\to\infty} \dfrac{3x^2-4x+6}{4x^3+2x^3-3x} = \square$

3. $\lim_{x\to\infty} \dfrac{(2x^2-3)(2x^3-x)}{x^4+6x^5-3x^2+5} = \dfrac{\square}{\square}$

4. $\lim_{x\to\infty} \left(\sqrt{3x+2}-\sqrt{3x-4}\right) = \square$

5. $\lim_{x\to\infty} \left(\sqrt{4x^2+3x-5}-\sqrt{4x^2-7x+2}\right) = \dfrac{\square}{\square}$

6. $\lim_{x\to\infty} \left(\sqrt{4x^2-5x+3}-(2x-1)\right) = \square \dfrac{\square}{\square}$

Let's all do our best!

LIVEWORKSHEETS