

LEMBAR KERJA PESERTA DIDIK

Anggota Kelompok :

1.

2.

KELOMPOK

3.

4.

DEFINISI LOGARITMA

Jika $a^n = x \leftrightarrow a_{\text{Log } x} = n$

Contoh : $3^2 = 9 \leftrightarrow 3_{\text{Log } 9} = 2$

Soal 1 :

$$4^{\dots} = 64 \leftrightarrow 4_{\text{Log } 64} = \dots$$

SIFAT-SIFAT LOGARITMA

1. $a_{\text{Log } a} = 1$

Contoh : $3_{\text{Log } 3} = 1$

Soal 2 :

$$5_{\text{Log } 5} = \dots$$

2. $a_{\text{Log } 1} = 0$

Contoh : $2_{\text{Log } 1} = 0$

Soal 3 :

$$6_{\text{Log } 1} = \dots$$

3. $a_{\text{Log } a^n} = n$

Contoh : $3_{\text{Log } 3^5} = 5$

Soal 4 :

$$7_{\text{Log } 7^4} = \dots$$

4. $a_{\text{Log } (b \times c)} = a_{\text{Log } b} + a_{\text{Log } c}$

Contoh : $2_{\text{Log } 8} + 2_{\text{Log } 4} = 2_{\text{Log } (8 \times 4)} = 2_{\text{Log } 32} = 5$

Soal 5 :

$$3_{\text{Log } 27} + 3_{\text{Log } 3} = 3_{\text{Log } (27 \times 3)} \\ = 3_{\text{Log } \dots} = \dots$$

5. $a_{\text{Log } \frac{b}{c}} = a_{\text{Log } b} - a_{\text{Log } c}$

Contoh : $2_{\text{Log } 8} - 2_{\text{Log } 4} = 2_{\text{Log } \frac{8}{2}} = 2_{\text{Log } 2} = 1$

Soal 6 :

$$3_{\text{Log } 27} - 3_{\text{Log } 3} = 3_{\text{Log } \frac{27}{3}} \\ = 3_{\text{Log } \dots} = \dots$$

6. $a_{\text{Log } b^n} = n a_{\text{Log } b}$

Contoh : $3_{\text{Log } 9^2} = 2. 3_{\text{Log } 9} = 2. 2 = 4$

Soal 7 :

$$6_{\text{Log } 216^2} = 2. 6_{\text{Log } 216} = \dots \times \dots = \dots$$

7. $a_{\text{Log } b} = \frac{n_{\text{Log } b}}{n_{\text{Log } a}}$

Contoh : $4_{\text{Log } 64} = \frac{2_{\text{Log } 64}}{2_{\text{Log } 4}} = \frac{6}{2} = 3$

Soal 8 :

$$9_{\text{Log } 81} = \frac{3_{\text{Log } \dots}}{3_{\text{Log } \dots}} = \frac{\dots}{\dots} = \dots$$

8. $a_{\text{Log } b} = \frac{1}{b_{\text{Log } a}}$

Contoh : $8_{\text{Log } 64} = \frac{1}{64_{\text{Log } 8}} = \frac{1}{\frac{1}{2}} = 2$

Soal 9 :

$$9_{\text{Log } 81} = \frac{1}{81_{\text{Log } 9}} = \frac{1}{\frac{\dots}{\dots}} = \dots$$

9. $a_{\text{Log } b} \times b_{\text{Log } c} = a_{\text{Log } c}$

Contoh : $2_{\text{Log } 8} \times 8_{\text{Log } 64} = 2_{\text{Log } 64} = 6$

Soal 10 :

$$3_{\text{Log } 9} \times 9_{\text{Log } 81} = \dots_{\text{Log } \dots} = \dots$$