

LOGARITMOS

QUESTÃO A

$$\log 48$$

$$\begin{aligned}\log 48 &= \log 6 \cdot 8 \\ &= \log 6 + \log 8 \\ &= 0,778151 + 0,90309 \\ &= 1,681241\end{aligned}$$

QUESTÃO B

$$\log 42$$

$$\begin{aligned}\log 42 &= \log 6 \cdot 7 \\ &= \log 6 + \log 7 \\ &= 0,778151 + 0,845098 \\ &= 1,623249\end{aligned}$$

QUESTÃO C

$$\log 20$$

$$\begin{aligned}\log 20 &= \log 4 \cdot 5 \\ &= \log 4 + \log 5 \\ &= 0,60206 + 0,69897 \\ &= 1,30103\end{aligned}$$

QUESTÃO D

$$\begin{aligned}
\log 49 &= \log 7^2 \\
&= 2 \log 7 \\
&= 2(0,845098) \\
&= 1,690196
\end{aligned}$$

QUESTÃO E

$\log 25$

$$\begin{aligned}
\log 25 &= \log 5^2 \\
&= 2 \log 5 \\
&= 2(0,69897) \\
&= 1,39794
\end{aligned}$$

QUESTÃO F

$\log 36$

$$\begin{aligned}
\log 36 &= \log 6^2 \\
&= 2 \log 6 \\
&= 2(0,778151) \\
&= 1,556303
\end{aligned}$$

QUESTÃO G

$\log \frac{2}{3}$

$$\begin{aligned}
\log \frac{2}{3} &= \log 2 - \log 3 \\
&= 0,30103 - 0,477121 \\
&= -0,176091
\end{aligned}$$

QUESTÃO H

$$\log \frac{4}{5}$$

$$\log \frac{4}{5} = \log 4 - \log 5$$

$$= 0,60206 - 0,69897$$

$$= -0,09691$$

QUESTÃO I

$$\log \frac{3}{4}$$

$$\log \frac{3}{4} = \log 3 - \log 4$$

$$= 0,477127 - 0,60206$$

$$= -0,124939$$

QUESTÃO J

$$\log 2401$$

$$\log 2401 = \log 7^4$$

$$= 4 \log 7$$

$$= 4(0,845098)$$

$$= 3,380392$$

QUESTÃO K

$$\log 360$$

$$\begin{aligned} \log 360 &= \log 5 \cdot 8 \cdot 9 \\ &= \log 5 + \log 8 + \log 9 \\ &= 0,69897 + 0,90309 + 0,954242 \\ &= 2,556303 \end{aligned}$$

QUESTÃO 2

$\log 84$

$$\begin{aligned} \log 84 &= \log \frac{1}{4} \cdot 6 \cdot 7 \cdot 8 \\ &= \log \frac{1}{4} + \log 6 + \log 7 + \log 8 \\ &= \log 1 - \log 4 + \log 6 + \log 7 + \log 8 \\ &= 0 - 0,60206 + 0,778151 + 0,845098 + 0,90309 \\ &= 1,924279 \end{aligned}$$