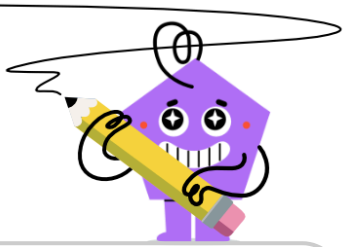
Name



Logarithm Algebra (Power Property) - Isolote Exponent, One Binomial (Coefficient 1) to Answer

1 Use the power rule to simplify this and solve for 'z'

$$3^{(z+4)} = 8^{(z)}$$

A	$z = \frac{-4 \ln 3}{\ln 3 - \ln 8}$	B	$z = \frac{\ln 8 - \ln 3}{4 \ln 3 - 2 \ln 8}$
C	$z = \frac{-4 \ln 8}{\ln 8 - \ln 3}$		

2 Use the power rule to simplify this and solve for 'n'

$$10^{(n+2)} = 2^{(n)}$$

A	$n = \frac{-2 \ln 10}{\ln 10 - \ln 2}$	B	$n = \frac{\ln 2 - \ln 10}{2 \ln 10 - 2 \ln 2}$
C	$n = \frac{-2 \ln 2}{\ln 2 - \ln 10}$		

3 Use the power rule to simplify this and solve for 'p'

$$2^{(p+3)} = 7^{(p)}$$

A	$p = \frac{-3 \ln 2}{\ln 2 - \ln 7}$	B	$p = \frac{\ln 7 - \ln 2}{3 \ln 2 - 2 \ln 7}$
C	$p = \frac{-3 \ln 7}{\ln 7 - \ln 2}$		

4 Use the power rule to simplify this and solve for 't'

$$10^{(t+8)} = 8^{(t)}$$

A	$t = \frac{\ln 8 - \ln 10}{8 \ln 10 - 2 \ln 8}$	B	$t = \frac{-8 \ln 8}{\ln 8 - \ln 10}$
C	$t = \frac{-8 \ln 10}{\ln 10 - \ln 8}$		

5 Use the power rule to simplify this and solve for 'r'

$$5^{(r+7)} = 8^{(r)}$$

A	$r = \frac{-7 \ln 8}{\ln 8 - \ln 5}$	B	$r = \frac{\ln 8 - \ln 5}{7 \ln 5 - 2 \ln 8}$
C	$r = \frac{-7 \ln 5}{\ln 5 - \ln 8}$		

6 Use the power rule to simplify this and solve for 'w'

$$8^{(w+8)} = 3^{(w)}$$

A	$w = \frac{-8 \ln 3}{\ln 3 - \ln 8}$	B	$w = \frac{-8 \ln 8}{\ln 8 - \ln 3}$
C	$w = \frac{\ln 3 - \ln 8}{8 \ln 8 - 2 \ln 3}$		

7 Use the power rule to simplify this and solve for 'y'

$$4^{(y+2)} = 8^{(y)}$$

A	$y = \frac{-2 \ln 8}{\ln 8 - \ln 4}$	B	$y = \frac{-2 \ln 4}{\ln 4 - \ln 8}$
C	$y = \frac{\ln 8 - \ln 4}{2 \ln 4 - 2 \ln 8}$		

8 Use the power rule to simplify this and solve for 'r'

$$2^{(r-1)} = 3^{(r)}$$

A	$r = \frac{\ln 2}{\ln 2 - \ln 3}$	B	$r = \frac{\ln 3 - \ln 2}{-1 \ln 2 - 2 \ln 3}$
C	$r = \frac{\ln 3}{\ln 3 - \ln 2}$		