Name

Logarithm Algebra (Power Property) - Isolote Exponent, Two Binomials (Coefficient 1) to Answer

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

$$7^{(n+8)} = 9^{(n+4)}$$

A	$n = \frac{4\ln 7 - 8\ln 9}{\ln 9 - \ln 7}$	B	$n = \frac{4\ln 9 - 8\ln 7}{\ln 7 - 1\ln 9}$
C	$n = \frac{\ln 9 - \ln 7}{8\ln 7 - 4\ln 9}$		

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

$$4^{(z-3)} = 6^{(z-3)}$$

A	$z = \frac{\ln 6 - \ln 4}{-3\ln 4 + 3\ln 6}$	B	$z = \frac{-3\ln 4 + 3\ln 6}{\ln 6 - \ln 4}$
C	$z = \frac{-3\ln 6 + 3\ln 4}{\ln 4 - 1\ln 6}$		

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

$$8^{(r-2)} = 10^{(r+2)}$$

A	$r = \frac{2\ln 10 + 2\ln 8}{\ln 8 - 1\ln 10}$	B	$r = \frac{\ln 10 - \ln 8}{-2\ln 8 - 2\ln 10}$
C	$r = \frac{2\ln 8 + 2\ln 10}{\ln 10 - \ln 8}$		

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

$$9^{(y-5)} = 2^{(y-9)}$$

A	$y = \frac{\ln 2 - \ln 9}{-5\ln 9 + 9\ln 2}$	B	$y = \frac{-9\ln 9 + 5\ln 2}{\ln 2 - \ln 9}$
C	$y = \frac{-9\ln 2 + 5\ln 9}{\ln 9 - 1\ln 2}$		

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

$$6^{(x+3)} = 5^{(x+1)}$$

A	$x = \frac{1\ln 6 - 3\ln 5}{\ln 5 - \ln 6}$	B	$x = \frac{\ln 5 - \ln 6}{3\ln 6 - \ln 5}$
C	$x = \frac{\ln 5 - 3\ln 6}{\ln 6 - 1\ln 5}$		

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

$$4^{(r+7)} = 9^{(r+4)}$$

A	$r = \frac{4\ln 9 - 7\ln 4}{\ln 4 - 1\ln 9}$	B	$r = \frac{\ln 9 - \ln 4}{7\ln 4 - 4\ln 9}$
C	$r = \frac{4\ln 4 - 7\ln 9}{\ln 9 - \ln 4}$		

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

$$9^{(y-7)} = 2^{(y-2)}$$

A	$y = \frac{\ln 2 - \ln 9}{-7\ln 9 + 2\ln 2}$	B	$y = \frac{-2\ln 2 + 7\ln 9}{\ln 9 - 1\ln 2}$
C	$y = \frac{-2\ln 9 + 7\ln 2}{\ln 2 - \ln 9}$		

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

$$8^{(m-8)} = 6^{(m+9)}$$

A	$m = \frac{9\ln 8 + 8\ln 6}{\ln 6 - \ln 8}$	B	$m = \frac{\ln 6 - \ln 8}{-8\ln 8 - 9\ln 6}$
C	$m = \frac{9\ln 6 + 8\ln 8}{\ln 8 - 1\ln 6}$		