



Apply the quotient law of logarithms

1

Convert the given logarithm to its equivalent based on the quotient property

$$\log_{10} 7 - \log_{10} 4$$

A $\log_{10} \frac{4}{7}$

B $\log_4 \frac{10}{7}$

C $\log_{10} \frac{7}{4}$

2

Convert the given logarithm to its equivalent based on the quotient property

$$\log_2 9 - \log_2 10$$

A $\log_2 1.9$

B $\log_2 -1.1$

C $\log_2 0.9$

D $\log_{0.9} 2$

3

Convert the given logarithm to its equivalent based on the quotient property

$$\log_7 \frac{8}{6}$$

A $\log_6 8 - \log_6 6$

B $\log_4 8 - \log_4 6$

C $\log_7 6 - \log_7 8$

D $\log_7 8 - \log_7 6$

4

Convert the given logarithm to its equivalent based on the quotient property

$$\log_x \frac{m}{q}$$

A $\log_x m - \log_x q$

B $\log_x q - \log_x m$

5

Convert the given logarithm to its equivalent based on the quotient property

$$\log_p z - \log_p t$$

A $\log_p \frac{z}{t}$

B $\log_p \frac{t}{z}$

C $\log_t \frac{p}{z}$

6

Convert the given logarithm to its equivalent based on the quotient property

$$\log_8 0.67$$

A $\log_5 6 - \log_5 9$

B $\log_6 9 - \log_6 8$

C $\log_8 6 - \log_8 9$

D $\log_8 9 - \log_8 6$

E $\log_7 6 - \log_7 9$

7

Use the quotient rule to simplify this to a quadratic of variable 'w'

$$\log_4(w + 6) - \log_4(w - 4) = \log_4(1w)$$

A $-1w^2 + 5w + 6 = 0$

B $-1w^2 + 5w + 4 = 0$

C $w^2 + 3w + 10 = 0$

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Use the quotient rule to simplify this to a quadratic of variable 'm'

$$\log_2(4m + 6) - \log_2(2m + 4) = \log_2(-1m)$$

A

$$2m^2 + 8m + 6 = 0$$

B

$$2m^2 + 8m + 8 = 0$$

C

$$2m^2 + 10m + 6 = 0$$

9

Use the quotient rule to simplify this to a quadratic and solve for 'r'

$$\log_3(r + 9) - \log_3(r + 9) = \log_3(-1r)$$

A

$$r = -2$$

B

$$r = -6$$

C

$$r = -1$$

10

Use the quotient rule to simplify this to a quadratic and solve for 'n'

$$\log_{10}(-5n + 7) - \log_{10}(-7n + 9) = \log_{10}(1n)$$

A

$$n = -6$$

B

$$n = 2$$

C

$$n = 1$$

11

Convert the given logarithm to its equivalent based on the quotient property

$$\log_r \frac{p}{n}$$

A

$$\log_r n - \log_r p$$

B

$$\log_r p - \log_r n$$

12

Convert the given logarithm to its equivalent based on the quotient property

$$\log_n t - \log_n z$$

A

$$\log_z \frac{n}{t}$$

B

$$\log_n \frac{z}{t}$$

C

$$\log_n \frac{t}{z}$$