

Solve simple logarithmic equations

1

What does the logarithm equation mean?

$$\log_{10} 1,000 = ?$$

A

What number would you raise 1,000 by to result in 10?

B

What number would you raise 10 by to result in 1,000?

2

What does the logarithm equation mean?

$$\log_3 424 = ?$$

A

What number would you raise 424 by to result in 3?

B

What number would you raise 3 by to result in 424?

3

Convert the given exponent to the equivalent in logarithm form

$$6^2 = 36$$

A

$$\log_2 6 = 36$$

B

$$\log_6 36 = 2$$

C

$$\log_{36} 6 = 2$$

D

$$\log_{36} 2 = 6$$

4

Convert the given logarithm to the equivalent in exponent form

$$\log_5 125 = 3$$

A

$$5^3 = 125$$

B

$$3^5 = 125$$

C

$$125^5 = 3$$

D

$$3^{125} = 5$$

5

What does the logarithm equation mean?

$$\log_7 328 = 2.98$$

A

To result in 2.98, you would raise 328 to the power of 7

B

To result in 328, you would raise 7 to the power of 2.98

6

Convert the given logarithm to the equivalent in exponent form

$$\log_8 199 = 2.55$$

A

$$2.55^8 = 199$$

B

$$199^{2.55} = 8$$

C

$$199^8 = 2.55$$

D

$$8^{2.55} = 199$$

7

Convert the given exponent to the equivalent in logarithm form

$$9^{2.1} = 101$$

A

$$\log_{101} 9 = 2.1$$

B

$$\log_9 101 = 2.1$$

C

$$\log_{2.1} 101 = 9$$

D

$$\log_{2.1} 9 = 101$$

8

Use a logarithm to solve for the missing exponent

$$6^x = 216$$

A

$$x = 1$$

B

$$x = 3$$

C

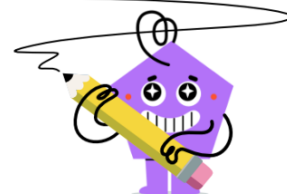
$$x = 5$$

D

$$x = 4$$

E

$$x = 2$$



Solve simple logarithmic equations

9

Use a logarithm to solve for the missing exponent

$$4^x = 106$$

A $x = 4.36$

B $x = 3.36$

C $x = 5.36$

D $x = 2.36$

E $x = 1.36$

10

Use a logarithm to solve for the missing exponent

$$2^x = 11.31$$

A $x = 4.5$

B $x = 5.5$

C $x = 3.5$

D $x = 1.5$

E $x = 2.5$

11

Solve the following logarithm

$$\log_2 13.93 = x$$

A $x = 3.8$

B $x = 1.8$

C $x = 5.8$

D $x = 2.8$

E $x = 4.8$

12

Simplify and solve for t

$$\log_4(2t + 8) = 3$$

A $t = 29$

B $t = 30$

C $t = 28$

D $t = 27$

13

Simplify and solve for n

$$\log_2\left(\frac{n+35}{n}\right) = 3$$

A $n = 5$

B $n = 4$

14

Simplify and solve for n

$$\log_4\left(\frac{n+7}{n-8}\right) = 2$$

A $n = 9$

B $n = 8$