Edulyte

CHANGE OF BASE FORMULA

The most important tools in mathematics for solving exponential equations and computing the relationship between numbers are logarithms. Logarithms are simply the opposite of exponentiation and help us to figure out the exponent to which a particular base number must be raised or multiplied by itself given several times to achieve a particular result. In other words, logarithms help us ease up difficult mathematical expressions containing exponents...

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Q1: When should you use the change of base formula for logarithms?

A: Only when working with base 10 logarithms
B: Only when working with natural logarithms
C: When working with logarithms in bases other than 10 or e
D: Only when solving quadratic equations

Q2: What does the change of base formula allow you to do with logarithms?

A: Change the value of the logarithm
B: Change the base of the logarithm
C: Change the domain of the logarithm
D: Change the sign of the logarithm

Q3: If you want to convert a logarithm with base 5 to a logarithm with base 10, what is the value of c in the change of base formula?

A: c = 5
B: c = 10
C: c = e
D: c = 2

Q4: The correct change of base formula is:

A: logb a = logc (a) / logc (a)
B: logb a = logc (a) / logc (b)
C: logb a = logc (a) / logc (c)
D: logb a = logc (a) / logc (d)

Q5: Change of base formula is used in:

A: Economics
B: Biology
C: Engineering
D: All of the above

Q6: Which is NOT a property of logarithms?

A: Product Rule
B: Quotient Rule
C: Multiplier Rule
D: Power Rule

Q7: Solve for x: log6(x) = 2

A: 36
B: 54
C: 144
D: 60

Q8: How to solve for log base x

A: Convert to exponential form x^z = y
B: Convert to logarithmic form x^z
C: Convert to multipliers form x*2
D: None of the above

Q9: Base 10 is represented as:

A: log10 (x)
B: log10
C: Log 1 (x)
D: 10 (x)

Q10: Base e is also known as:

A: Unnatural logarithms
B: Common logarithms
C: Uncommon logarithms
D: Natural logarithms

Answers

Q1: C - When working with logarithms in bases other than 10 or e

Q2: B - Change the base of the logarithm

Q3: C - c = e

Q4: B - logb a = logc (a) / logc (b)

Q5: D - All of the above

Q6: C - Multiplier Rule

Q7: A - 36

Q8: A - Convert to exponential form x^z = y

Q9: A - log10 (x)

Q10: D - Natural logarithms