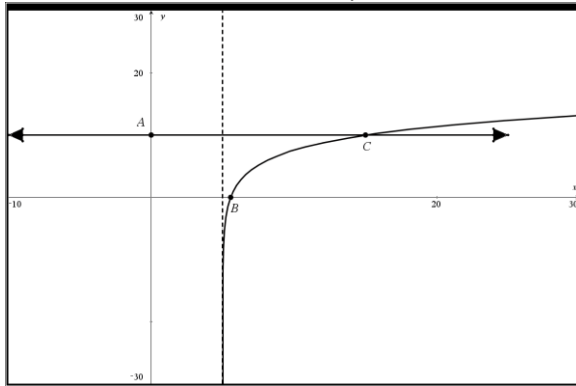


Name _____ Formative Solving Logarithmic Equations Period _____

1. ALGEBRAICALLY determine the solutions to the given logarithmic equations
2. CONFIRM answers using a graphing calculator
3. Complete the related table

Related Graph



Related Equation
 $8\log_{10}(x - 5) + 2 = 10$

Did you have any extraneous solutions? _____ If so what was it? _____

<p>Related Functions</p> $f(x) = 8\log_{10}(x - 5) + 2$ $g(x) = 10$	<p>State the coordinate A Exact</p> <p>Approximate</p>	<p>State the coordinate B Exact</p> <p>Approximate</p>	<p>State the coordinate C Exact</p> <p>Approximate</p>	<p>State the Domain of the Logarithmic Function</p> <p>State the vertical asymptote</p>
---------------------------------------------------------------------	------------------------------------------------------------	------------------------------------------------------------	------------------------------------------------------------	-----------------------------------------------------------------------------------------------------

Solve each of the following logarithmic equations

$$\log_8(x - 10) + \log_8(x + 10) = 2$$

$$\log_6(x - 1) + \log_6(x + 9) = \log_6(11)$$

Did you have any extraneous solutions? _____

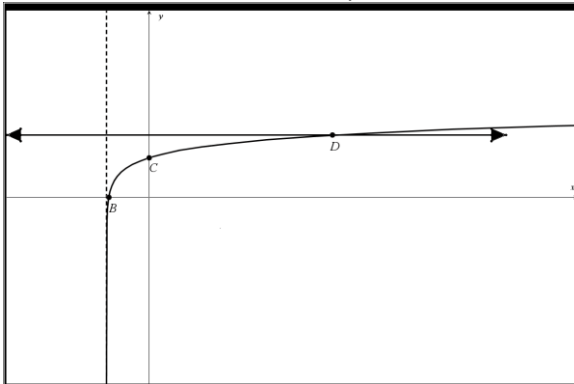
Did you have any extraneous solutions? _____

If so what was it? _____

If so what was it? _____

1. ALGEBRAICALLY determine the solutions to the given logarithmic equations
2. CONFIRM answers using a graphing calculator
3. Complete the related table

Related Graph



Related Equation
 $5\log_{10}(x + 3) + 4 = 14$

Did you have any extraneous solutions? _____ If so what was it? _____

<p>Related Functions</p> $f(x) = 5\log_{10}(x + 3) + 4$ $g(x) = 10$ <p>State the Domain of the Logarithmic Function</p> <p>State the vertical asymptote</p>	<p>State the coordinate A Exact</p> <p>Approximate</p>	<p>State the coordinate B Exact</p> <p>Approximate</p>	<p>State the coordinate C Exact</p> <p>Approximate</p>	<p>State the coordinate D Exact</p> <p>Approximate</p>
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Solve each of the following logarithmic equations

$$\log_4(x - 10) + \log_4(x + 10) = 3$$

$$\log_6(x - 1) + \log_6(x + 10) = \log_6(12)$$

Did you have any extraneous solutions? _____

Did you have any extraneous solutions? _____

If so what was it? _____

If so what was it? _____