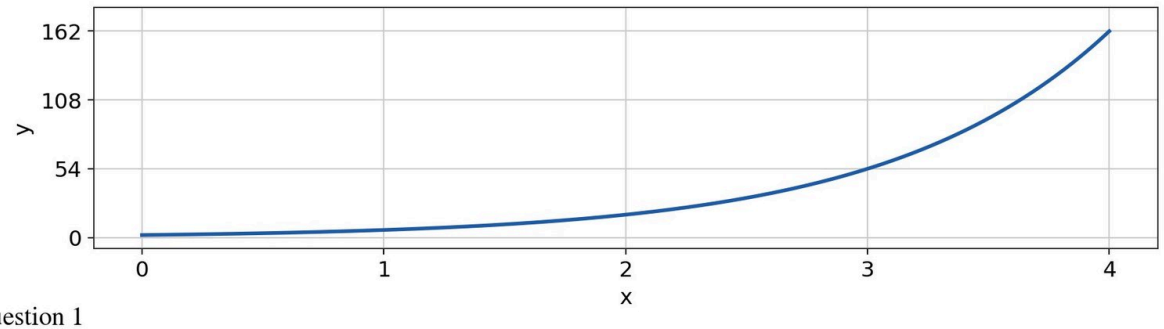
EXPONENTIAL AND LOGARITHMIC FUNCTIONS - PRACTICE TEST | NEW BRUNSWICK PRE-CALCULUS A 120 · UNIT C · 25 QUESTIONS

Exponential and Logarithmic Functions — Practice Test

This practice test was made by AI and there may be mistakes. If a question or answer looks wrong, use the Flag a mistake button to let Brett know so he can fix it.

1 **The graph shows an exponential function. The value of x for which the function value is 162 is**



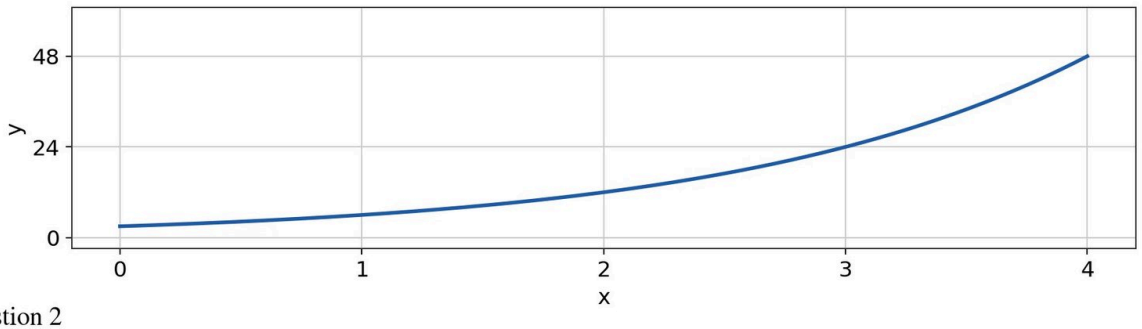
Question 1

The graph shows an exponential function. The value of x for which the function value is 162 is

ANSWER

Understand It with Pulse | Flag a mistake

2 **The graph shows an exponential function. The value of x for which the function value is 48 is**



Question 2

The graph shows an exponential function. The value of x for which the function value is 48 is

ANSWER

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3 **For $f(x) = 5 \times 2^x$, the value of f(3) is**

ANSWER

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4 **The exponential function $f(x) = 3(2)^x$ has value at x = 3 of**

ANSWER

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5 **If $f(x) = 5^x$, then $f(2)$ equals**

ANSWER _____

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6 **A population doubles every hour and starts at 100. After 4 hours it is**

ANSWER _____

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7 **The function $f(x) = 2^x$ takes the value 32 when x is**

ANSWER _____

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8 **Evaluating $f(x) = (\frac{1}{2})^x$ at x = 2 gives**

ANSWER _____

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9 **The value of log base 2 of 16 is**

ANSWER _____

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10 **The value of log base 10 of 1000 is**

ANSWER _____

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11 **The value of log base 3 of 81 is**

ANSWER _____

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12 **The logarithm log base 2 of 32 is**

ANSWER _____

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13 **Solving $2^x = 64$ gives x =**

ANSWER _____

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14 **The common logarithm of 100 is**

ANSWER _____

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15 **If log base 3 of x equals 4, then x equals**

ANSWER _____

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16 **The natural logarithm of e^2 is**

ANSWER _____

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17 **The value of 2^3 is**

ANSWER _____

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18 **The value of 10^2 is**

ANSWER _____

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19 **The value of 3^4 is**

ANSWER _____

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20 **2^5 =**

ANSWER _____

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21 $3^2 \times 2^3 =$

ANSWER

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22 The expression 4^0 equals

ANSWER

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23 The value of $10^{-}2$ as a decimal is

ANSWER

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24 A bacteria culture grows by a factor of 3 each hour. Starting from 10 bacteria, after 2 hours there are

ANSWER

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25

1000 dollars grows at 5 percent per year compounded yearly. Its value after 3 years in dollars to two decimal places is

ANSWER

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ANSWER KEY

1.	4	**10.**	3	**19.**	81
2.	4	**11.**	4	**20.**	32
3.	40	**12.**	5	**21.**	72
4.	24	**13.**	6	**22.**	1
5.	25	**14.**	2	**23.**	0.01
6.	1600	**15.**	81	**24.**	90
7.	5	**16.**	2	**25.**	1157.63
8.	0.25	**17.**	8		
9.	4	**18.**	100		

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