ONTARIO ADVANCED FUNCTIONS, GRADE 12, UNIVERSITY PREPARATION (MHF4U) · UNIT B

Exponential and Logarithmic Functions — Practice Test

Ontario Advanced Functions, Grade 12, University Preparation (MHF4U) • 25 questions

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 **Using logarithm laws, log 2 + log 3 equals**

- A log 5
- B log 6
- C log 1
- D 2 log 3

Understand It with Pulse | Flag a mistake

2 **Using logarithm laws, log 3 + log 2 equals**

A log 5

B log 6

C log 1

D 3 log 2

Understand It with Pulse | Flag a mistake

3 **Using logarithm laws, log 4 + log 3 equals**

A log 7

B log 1

C 4 log 3

D log 12

Understand It with Pulse | Flag a mistake

4 **The common logarithm of 1000 is**

ANSWER _____

Understand It with Pulse | Flag a mistake

5 **The value of $\log_2 4$ is**

A 2

B 3

C 1

D 4

Understand It with Pulse | Flag a mistake

6 **The value of $\log_2 8$ is**

A 3

B 4

C 2

D 6

Understand It with Pulse | Flag a mistake

7 **The value of $\log_2 16$ is**

A 5

B 3

C 8

D 4

Understand It with Pulse | Flag a mistake

8 **If log base 2 of x = 5 , then x is**

ANSWER _____

Understand It with Pulse | Flag a mistake

9 **The natural logarithm of e is**

ANSWER _____

Understand It with Pulse | Flag a mistake

10 **The logarithm log base 10 of 0.01 is**

ANSWER _____

Understand It with Pulse | Flag a mistake

11 **Using the change of base, log base 2 of 10 is about**

ANSWER _____

Understand It with Pulse | Flag a mistake

12 **The sum log 2 + log 5 simplifies to log of**

ANSWER _____

Understand It with Pulse | Flag a mistake

13 **The solution of $2^x = 8$ is x equal to**

A 4

B 3

C 2

D 5

Understand It with Pulse | Flag a mistake

14 The solution of $2^x = 16$ is x equal to

- A 4
- B 5
- C 3
- D 6

Understand It with Pulse | Flag a mistake

15 The solution of $3^x = 27$ is x equal to

- A 4
- B 2
- C 5
- D 3

Understand It with Pulse | Flag a mistake

16 **Solving log base 10 of x = 3 gives x =**

ANSWER _____

Understand It with Pulse | Flag a mistake

17 **The solution of $\log_2 x = 2$ is x equal to**

A 15

B -7

C 4

D 6

Understand It with Pulse | Flag a mistake

18 The solution of $\log_2 x = 3$ is x equal to

- A 6
- B 9
- C 10
- D 8

Understand It with Pulse | Flag a mistake

19 The solution of $\log_2 x = 4$ is x equal to

- A 16
- B 8
- C 27
- D 18

Understand It with Pulse | Flag a mistake

20 The equation $e^x = e^3$ has solution $x =$

ANSWER _____

Understand It with Pulse | Flag a mistake

21 The domain of $y = \log(x - 2)$ is

A $x > 2$

B $x \geq 2$

C $x < 2$

D $x > -2$

Understand It with Pulse | Flag a mistake

22 The domain of y = log(x - 3) is

- A x ≥ 3
- B x > 3
- C x < 3
- D x > -3

Understand It with Pulse | Flag a mistake

23 The domain of y = log(x - 4) is

- A x ≥ 4
- B x < 4
- C x > 4
- D x > -4

Understand It with Pulse | Flag a mistake

24 The domain of $y = \log(x - 2)$ is x greater than

ANSWER _____

Understand It with Pulse | Flag a mistake

25 The inverse of $y = 2^x$ is

A $y = 2^{-x}$

B $y = \log x$

C $y = \log_2 x$

D $y = x^2$

Understand It with Pulse | Flag a mistake

ANSWER KEY

1.	B	**10.**	-2	**19.**	A
2.	B	**11.**	3.32	**20.**	3
3.	D	**12.**	10	**21.**	A
4.	3	**13.**	B	**22.**	B
5.	A	**14.**	A	**23.**	C
6.	A	**15.**	D	**24.**	2
7.	D	**16.**	1000	**25.**	C
8.	32	**17.**	C		
9.	1	**18.**	D		

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