ONTARIO FUNCTIONS AND APPLICATIONS, GRADE 11, UNIVERSITY/COLLEGE PREPARATION (MCF3M) · UNIT B

Exponential Functions — Practice Test

Ontario Functions and Applications, Grade 11, University/College Preparation (MCF3M) • 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 **A radioactive sample starts at 100 grams and halves every day. The amount after 2 days, in grams, is**

- A 50
- B 12
- C 25
- D 100

Understand It with Pulse | Flag a mistake

2 **A savings account starts at 800 dollars and grows by 10 percent each year. After 2 years the balance, to the nearest dollar, is**

- A 1048
- B 968
- C 888
- D 960

Understand It with Pulse | Flag a mistake

3 **A town population of 1000 grows by 5 percent each year. After 1 year the population is**

- A 1050
- B 1100
- C 1000
- D 1005

Understand It with Pulse | Flag a mistake

4 **An investment doubles every 2 years. Starting with 500 dollars, the value after 6 years, in dollars, is**

A 2000

B 4000

C 8000

D 3000

Understand It with Pulse | Flag a mistake

5 **Bacteria double every hour. Starting with 50 bacteria, the number after 2 hours is**

A 100

B 211

C 250

D 200

Understand It with Pulse | Flag a mistake

6 **How many years will it take for an amount to grow by a factor of 8 if it doubles each year? The number of years is**

- A 4
- B 3
- C 2
- D 8

Understand It with Pulse | Flag a mistake

7 **A car worth 800 dollars loses 10 percent of its value each year. Its value after 1 year, in dollars, is**

- A 640
- B 880
- C 720
- D 790

Understand It with Pulse | Flag a mistake

8 **Simple interest: 1000 dollars is invested for reference only. An amount of 1000 dollars at 5 percent simple interest for 2 years earns interest, in dollars, of**

A 50

B 200

C 100

D 150

Understand It with Pulse | Flag a mistake

9 **A population of 400 doubles every year. After 6 years the population is**

A 25600

B 12800

C 51200

D 2400

Understand It with Pulse | Flag a mistake

10 **A savings account starts at 800 dollars and grows by 10 percent each year. After 1 year the balance, to the nearest dollar, is**

- A 960
- B 880
- C 800
- D 891

Understand It with Pulse | Flag a mistake

11 **The function $y = 3(2^x)$ has y intercept**

- A 6
- B 0
- C 3
- D 4

Understand It with Pulse | Flag a mistake

12 **A radioactive sample starts at 200 grams and halves every day. The amount after 2 days, in grams, is**

- A 100
- B 25
- C 200
- D 50

Understand It with Pulse | Flag a mistake

13 **A savings account starts at 800 dollars and grows by 10 percent each year. After 3 years the balance, to the nearest dollar, is**

- A 1145
- B 985
- C 1065
- D 1040

Understand It with Pulse | Flag a mistake

14 **A town population of 2000 grows by 4 percent each year. After 1 year the population is**

A 2080

B 2130

C 2030

D 2004

Understand It with Pulse | Flag a mistake

15 **An investment doubles every 3 years. Starting with 500 dollars, the value after 9 years, in dollars, is**

A 2000

B 4000

C 8000

D 3000

Understand It with Pulse | Flag a mistake

16 **Bacteria double every hour. Starting with 50 bacteria, the number after 3 hours is**

A 400

B 150

C 200

D 450

Understand It with Pulse | Flag a mistake

17 **How many years will it take for an amount to grow by a factor of 16 if it doubles each year? The number of years is**

A 4

B 5

C 3

D 16

Understand It with Pulse | Flag a mistake

18 **A car worth 1200 dollars loses 10 percent of its value each year. Its value after 1 year, in dollars, is**

- A 960
- B 1080
- C 1320
- D 1190

Understand It with Pulse | Flag a mistake

19 **Simple interest: 1000 dollars is invested for reference only. An amount of 2000 dollars at 5 percent simple interest for 2 years earns interest, in dollars, of**

- A 100
- B 400
- C 300
- D 200

Understand It with Pulse | Flag a mistake

20 **A radioactive sample starts at 300 grams and halves every day. The amount after 2 days, in grams, is**

- A 75
- B 150
- C 37
- D 300

Understand It with Pulse | Flag a mistake

21 **A savings account starts at 800 dollars and grows by 10 percent each year. After 4 years the balance, to the nearest dollar, is**

- A 1251
- B 1091
- C 1120
- D 1171

Understand It with Pulse | Flag a mistake

22 **A town population of 500 grows by 6 percent each year. After 1 year the population is**

- A 580
- B 530
- C 480
- D 506

Understand It with Pulse | Flag a mistake

23 **An investment doubles every 4 years. Starting with 500 dollars, the value after 12 years, in dollars, is**

- A 4000
- B 2000
- C 8000
- D 3000

Understand It with Pulse | Flag a mistake

24 **Bacteria double every hour. Starting with 50 bacteria, the number after 4 hours is**

- A 200
- B 800
- C 400
- D 850

Understand It with Pulse | Flag a mistake

25 **How many years will it take for an amount to grow by a factor of 32 if it doubles each year? The number of years is**

- A 6
- B 4
- C 5
- D 32

Understand It with Pulse | Flag a mistake

ANSWER KEY

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

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