Task card 1 Exponential Functions: Growth & De...

$f(x) = 16\left(\frac{1}{2}\right)^x$. Find $f(3)$.

Task card 2 Exponential Functions: Growth & De...

The population of a town is modeled by $y = 7300(1.03)^t$, where t is in years. By what percent does it increase each year?

Task card 3 Exponential Functions: Growth & De...

A town has 8800 people. Its population grows by 3% each year. What will the population be after 3 years?

Task card 4 Exponential Functions: Growth & De...

$f(x) = 3(4)^x$.

Find $f(3)$.

Task card 5 Exponential Functions: Growth & De...

The population of a town is modeled by $y = 2400(1.13)^t$, where t is in years. By what percent does it increase each year?

Task card 6 Exponential Functions: Growth & De...

A town has 3300 people. Its population grows by 6% each year. What will the population be after 10 years?

Task card 7 Exponential Functions: Growth & De...

$f(x) = 32\left(\frac{1}{2}\right)^x$. Find $f(4)$.

Task card 8 Exponential Functions: Growth & De...

The population of a town is modeled by $y = 4000(1.12)^t$, where t is in years. By what percent does it increase each year?

Task card 9 Exponential Functions: Growth & De...

A car costs $38000. Its value decreases by 19% each year. What is its value after 8 years, in dollars?

Task card 10 Exponential Functions: Growth & De...

$f(x) = 4(3)^x$. Find $f(1)$.

Task card 11 Exponential Functions: Growth & De...

The population of a town is modeled by $y = 6500(1.06)^t$, where t is in years. By what percent does it increase each year?

Task card 12 Exponential Functions: Growth & De...

A town has 2000 people. Its population grows by 2% each year. What will the population be after 9 years?

Task card 13 Exponential Functions: Growth & De...

A car costs $23000. Its value decreases by 14% each year. What is its value after 10 years, in dollars?

Task card 14 Exponential Functions: Growth & De...

The number of fish in a lake is modeled by $y = 1200(0.83)^t$, where t is in years. By what percent does it decrease each year?

Task card 15 Exponential Functions: Growth & De...

A car costs $29000. Its value decreases by 18% each year. What is its value after 4 years, in dollars?

Task card 16 Exponential Functions: Growth & De...

A town has 8300 people. Its population grows by 7% each year. What will the population be after 4 years?

Task card 17 Exponential Functions: Growth & De...

The value of an investment is modeled by $y = 1100(1.06)^t$, where t is in years. By what percent does it increase each year?

Task card 18 Exponential Functions: Growth & De...

A town has 6400 people. Its population grows by 6% each year. What will the population be after 5 years?

Task card 19 Exponential Functions: Growth & De...

$f(x) = 6(4)^x$.

Find f(2).

Task card 20 Exponential Functions: Growth & De...

The population of a town is modeled by $y = 8400(1.13)^t$, where t is in years. By what percent does it increase each year?

Task card 21 Exponential Functions: Growth & De...

A car costs $27000. Its value decreases by 14% each year. What is its value after 7 years, in dollars?

Task card 22 Exponential Functions: Growth & De...

$f(x) = 2(2)^x$.

Find f(3).

Task card 23 Exponential Functions: Growth & De...

The population of a town is modeled by $y = 8200(0.70)^t$, where t is in years. By what percent does it decrease each year?

Task card 24 Exponential Functions: Growth & De...

A car costs $27000. Its value decreases by 17% each year. What is its value after 6 years, in dollars?

Exponential Functions: Growth & Decay Task Cards

Recording sheet · Grade 9 · Answer each question. Round money and populations to the nearest whole number. Write functions like y = 3(2)^x.

Scan to check your answers

Name: _____ Date: _____

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

Exponential Functions: Growth & Decay Task Cards: Answer Key

Grade 9 · Medium

The answers online

1. 2	**2.** 3%	**3.** 9616
4. 192	**5.** 13%	**6.** 5910
7. 2	**8.** 12%	**9.** 7041
10. 12	**11.** 6%	**12.** 2390
13. 5090	**14.** 17%	**15.** 13112
16. 10880	**17.** 6%	**18.** 8565
19. 96	**20.** 13%	**21.** 9394
22. 16	**23.** 30%	**24.** 8827