Exponential Growth, Decay & Compound Interest · 1

Does $y = 120(1.04)^x$ show growth or decay, and by what percent per period? Answer like: growth, 4%

Exponential Growth, Decay & Compound Interest · 2

A colony of 12 bacteria doubles every 10 hours. How many bacteria are there after 40 hours?

Exponential Growth, Decay & Compound Interest · 3

Does $y = 800(0.8)^t$ show growth or decay, and by what percent per period? Answer like: growth, 4%

Exponential Growth, Decay & Compound Interest · 4

A colony of 3 bacteria doubles every 3 hours. How many bacteria are there after 3 hours?

Exponential Growth, Decay & Compound Interest · 5

Does $y = 400(1.2)^x$ show growth or decay, and by what percent per period? Answer like: growth, 4%

Exponential Growth, Decay & Compound Interest · 6

A 50-mg sample of a substance has a half-life of 3 hours. How many milligrams remain after 3 hours?

Exponential Growth, Decay & Compound Interest · 7

Does $y = 400(0.75)^t$ show growth or decay, and by what percent per period? Answer like: growth, 4%

Exponential Growth, Decay & Compound Interest · 8

A 200-mg sample of a substance has a half-life of 2 hours. How many milligrams remain after 6 hours?

Exponential Growth, Decay & Compound Interest · 2

ANSWER

192

Exponential Growth, Decay & Compound Interest · 1

ANSWER

growth, 4%

Exponential Growth, Decay & Compound Interest · 4

ANSWER

6

Exponential Growth, Decay & Compound Interest · 3

ANSWER

decay, 20%

Exponential Growth, Decay & Compound Interest · 6

ANSWER

25

Exponential Growth, Decay & Compound Interest · 5

ANSWER

growth, 20%

Exponential Growth, Decay & Compound Interest · 8

ANSWER

25

Exponential Growth, Decay & Compound Interest · 7

ANSWER

decay, 25%

Exponential Growth, Decay & Compound Interest · 9

Does $y = 400(1.25)^t$ show growth or decay, and by what percent per period? Answer like: growth, 4%

Exponential Growth, Decay & Compound Interest · 10

$2,000 is invested at 3.5% interest compounded annually for 7 years. Find the balance, to the nearest cent.

Exponential Growth, Decay & Compound Interest · 11

A 100-mg sample of a substance has a half-life of 5 hours. How many milligrams remain after 10 hours?

Exponential Growth, Decay & Compound Interest · 12

A town has 24,000 people and grows by 2% per year. Find its population after 3 years, to the nearest whole number.

Exponential Growth, Decay & Compound Interest · 13

Does $y = 400(1.3)^x$ show growth or decay, and by what percent per period? Answer like: growth, 4%

Exponential Growth, Decay & Compound Interest · 14

$2,500 is invested at 2% interest compounded annually for 3 years. Find the balance, to the nearest cent.

Exponential Growth, Decay & Compound Interest · 15

A machine worth $15,000 loses 8% of its value each year. Find its value after 12 years, to the nearest dollar.

Exponential Growth, Decay & Compound Interest · 16

$1,500 is invested at 5% interest compounded quarterly for 9 years. Find the balance, to the nearest cent.

Exponential Growth, Decay & Compound Interest · 10

ANSWER

2544.56

Exponential Growth, Decay & Compound Interest · 9

ANSWER

growth, 25%

Exponential Growth, Decay & Compound Interest · 12

ANSWER

25469

Exponential Growth, Decay & Compound Interest · 11

ANSWER

25

Exponential Growth, Decay & Compound Interest · 14

ANSWER

2653.02

Exponential Growth, Decay & Compound Interest · 13

ANSWER

growth, 30%

Exponential Growth, Decay & Compound Interest · 16

ANSWER

2345.92

Exponential Growth, Decay & Compound Interest · 15

ANSWER

5515

Exponential Growth, Decay & Compound Interest · 17

Does $y = 1500(0.65)^t$ show growth or decay, and by what percent per period? Answer like: growth, 4%

Exponential Growth, Decay & Compound Interest · 18

$1,500 is invested at 4% interest compounded annually for 2 years. Find the balance, to the nearest cent.

Exponential Growth, Decay & Compound Interest · 19

A 192-mg sample of a substance has a half-life of 12 hours. How many milligrams remain after 48 hours?

Exponential Growth, Decay & Compound Interest · 20

A town has 8,000 people and grows by 3% per year. Find its population after 12 years, to the nearest whole number.

Exponential Growth, Decay & Compound Interest · 21

Does $y = 3000(0.75)^x$ show growth or decay, and by what percent per period? Answer like: growth, 4%

Exponential Growth, Decay & Compound Interest · 22

$1,000 is invested at 2.5% interest compounded annually for 5 years. Find the balance, to the nearest cent.

Exponential Growth, Decay & Compound Interest · 23

A machine worth $50,000 loses 10% of its value each year. Find its value after 11 years, to the nearest dollar.

Exponential Growth, Decay & Compound Interest · 24

$5,000 is invested at 3% interest compounded quarterly for 12 years. Find the balance, to the nearest cent.

Exponential Growth, Decay & Compound Interest · 18

ANSWER

1622.40

Exponential Growth, Decay & Compound Interest · 17

ANSWER

decay, 35%

Exponential Growth, Decay & Compound Interest · 20

ANSWER

11406

Exponential Growth, Decay & Compound Interest · 19

ANSWER

12

Exponential Growth, Decay & Compound Interest · 22

ANSWER

1131.41

Exponential Growth, Decay & Compound Interest · 21

ANSWER

decay, 25%

Exponential Growth, Decay & Compound Interest · 24

ANSWER

7157.03

Exponential Growth, Decay & Compound Interest · 23

ANSWER

15691