Exponential Growth, Decay & Compound Interest · 1

Does $y = 120(1.08)^x$ show growth or decay, and by what percent per period? Answer like: growth, 4%

Exponential Growth, Decay & Compound Interest · 2

$5,000 is invested at 3.5% interest compounded quarterly for 9 years. Find the balance, to the nearest cent.

Exponential Growth, Decay & Compound Interest · 3

A town has 1,200 people and grows by 6% per year. Find its population after 6 years, to the nearest whole number.

Exponential Growth, Decay & Compound Interest · 4

$1,000 is invested at 3.5% interest compounded continuously for 19 years. Find the balance, to the nearest cent.

Exponential Growth, Decay & Compound Interest · 5

$5,000 is invested at 2% interest compounded annually for 15 years. Find the balance, to the nearest cent.

Exponential Growth, Decay & Compound Interest · 6

$1,500 is invested at 4.5% interest compounded monthly for 7 years. Find the balance, to the nearest cent.

Exponential Growth, Decay & Compound Interest · 7

A colony of 10 bacteria doubles every 5 hours. How many bacteria are there after 10 hours?

Exponential Growth, Decay & Compound Interest · 8

$600 is invested at 4% interest compounded continuously for 10 years. Find the balance, to the nearest cent.

Exponential Growth, Decay & Compound Interest · 2

ANSWER

6841.92

Exponential Growth, Decay & Compound Interest · 1

ANSWER

growth, 8%

Exponential Growth, Decay & Compound Interest · 4

ANSWER

1944.49

Exponential Growth, Decay & Compound Interest · 3

ANSWER

1702

Exponential Growth, Decay & Compound Interest · 6

ANSWER

2054.18

Exponential Growth, Decay & Compound Interest · 5

ANSWER

6729.34

Exponential Growth, Decay & Compound Interest · 8

ANSWER

895.09

Exponential Growth, Decay & Compound Interest · 7

ANSWER

40

Exponential Growth, Decay & Compound Interest · 9

Does $y = 120(1.35)^t$ show growth or decay, and by what percent per period? Answer like: growth, 4%

Exponential Growth, Decay & Compound Interest · 10

$2,500 is invested at 4% interest compounded semiannually for 9 years. Find the balance, to the nearest cent.

Exponential Growth, Decay & Compound Interest · 11

A town has 24,000 people and grows by 6% per year. Find its population after 11 years, to the nearest whole number.

Exponential Growth, Decay & Compound Interest · 12

$3,000 is invested at 6% interest compounded continuously for 2 years. Find the balance, to the nearest cent.

Exponential Growth, Decay & Compound Interest · 13

$5,000 is invested at 2% interest compounded annually for 4 years. Find the balance, to the nearest cent.

Exponential Growth, Decay & Compound Interest · 14

$1,500 is invested at 3.5% interest compounded monthly for 4 years. Find the balance, to the nearest cent.

Exponential Growth, Decay & Compound Interest · 15

A colony of 5 bacteria doubles every 3 hours. How many bacteria are there after 3 hours?

Exponential Growth, Decay & Compound Interest · 16

$5,000 is invested at 7% interest compounded continuously for 5 years. Find the balance, to the nearest cent.

Exponential Growth, Decay & Compound Interest · 10

ANSWER

3570.62

Exponential Growth, Decay & Compound Interest · 9

ANSWER

growth, 35%

Exponential Growth, Decay & Compound Interest · 12

ANSWER

3382.49

Exponential Growth, Decay & Compound Interest · 11

ANSWER

45559

Exponential Growth, Decay & Compound Interest · 14

ANSWER

1725.06

Exponential Growth, Decay & Compound Interest · 13

ANSWER

5412.16

Exponential Growth, Decay & Compound Interest · 16

ANSWER

7095.34

Exponential Growth, Decay & Compound Interest · 15

ANSWER

10

Exponential Growth, Decay & Compound Interest · 17

$1,000 is invested at 4% interest compounded quarterly for 12 years. Find the balance, to the nearest cent.

Exponential Growth, Decay & Compound Interest · 18

$3,000 is invested at 6% interest compounded continuously for 3 years. Find the balance, to the nearest cent.

Exponential Growth, Decay & Compound Interest · 19

A town has 4,800 people and grows by 12% per year. Find its population after 11 years, to the nearest whole number.

Exponential Growth, Decay & Compound Interest · 20

Does $y = 50(1.05)^t$ show growth or decay, and by what percent per period? Answer like: growth, 4%

Exponential Growth, Decay & Compound Interest · 21

$800 is invested at 3% interest compounded semiannually for 3 years. Find the balance, to the nearest cent.

Exponential Growth, Decay & Compound Interest · 22

$2,000 is invested at 3% interest compounded continuously for 11 years. Find the balance, to the nearest cent.

Exponential Growth, Decay & Compound Interest · 23

A town has 1,200 people and grows by 3% per year. Find its population after 8 years, to the nearest whole number.

Exponential Growth, Decay & Compound Interest · 24

$2,000 is invested at 3.5% interest compounded quarterly for 9 years. Find the balance, to the nearest cent.

Exponential Growth, Decay & Compound Interest · 18

ANSWER

3591.65

Exponential Growth, Decay & Compound Interest · 17

ANSWER

1612.23

Exponential Growth, Decay & Compound Interest · 20

ANSWER

growth, 5%

Exponential Growth, Decay & Compound Interest · 19

ANSWER

16697

Exponential Growth, Decay & Compound Interest · 22

ANSWER

2781.94

Exponential Growth, Decay & Compound Interest · 21

ANSWER

874.75

Exponential Growth, Decay & Compound Interest · 24

ANSWER

2736.77

Exponential Growth, Decay & Compound Interest · 23

ANSWER

1520