

Name:

ANSWERS!

Period:



Communication



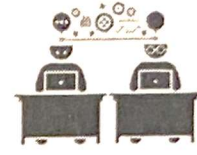
Successful Partnership



Encouragement



Solving Problem Together



Collaboration

## Lesson 10-4 Classwork

## Calculators OK

$$\text{Original Amount} \left( 1 + / - \begin{array}{l} \text{First} \\ \text{Decimal} \\ \text{Percent} \\ \text{Change} \end{array} \right) \left( 1 + / - \begin{array}{l} \text{Second} \\ \text{Decimal} \\ \text{Percent} \\ \text{Change} \end{array} \right) = \text{New Amount}$$

## Question 01

A share of stock was worth \$31.50 on Monday morning. On Tuesday, the share rose 20% based on its value the day before. On Wednesday, the share fell 20% based on its value the day before. What was the value of the stock at the end of Wednesday?

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$$31.5(1.2)(0.8)$$

$$\text{\$30.24}$$

## Question 02

A share of stock was worth \$44.00 on Monday morning. On Tuesday, the share rose 10% based on its value the day before. On Wednesday, the share fell 10% based on its value the day before. What was the value of the stock at the end of Wednesday?

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$$44(1.1)(0.9)$$

$$\text{\$43.56}$$

## Question 03

The population of a small city was  $p$  in 2000. The population rose 15% from 2000 to 2010. The population rose 10% from 2010 to 2020.

Select the expressions below that represent the population of the city in 2020. Select all that apply.

a)  $0.25p$

b)  $1.25p$

c)  $(1.15)(1.1)p$

d)  $1.265p$

e)  $2.25p$

$$p(1.15)(1.1)$$

$$p(1.265)$$

## Question 04

The population of a small city was  $p$  in 2000. The population fell 10% from 2000 to 2010. The population fell 5% from 2010 to 2020.

Write an expression that represents the population of the city in 2020.

$$p(0.9)(0.95)$$

$$0.855p$$

Question 05

A share of stock was worth \$28.00 on Monday morning. On Tuesday, the share rose 15% based on its value the day before. On Wednesday, the share fell 10% based on its value the day before. What was the value of the stock at the end of Wednesday?

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$$28(1.15)(0.9)$$

$$\boxed{\$28.98}$$

Question 06

A share of stock was worth \$80.00 on Monday morning. On Tuesday, the share rose 20% based on its value the day before. On Wednesday, the share fell 18% based on its value the day before. What was the value of the stock at the end of Wednesday?

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$$80(1.2)(0.82)$$

$$\boxed{\$78.72}$$

Question 07

A share of stock was worth \$20.00 on Monday morning. On Tuesday, the share rose 15% based on its value the day before. On Wednesday, the share fell 15% based on its value the day before. What was the value of the stock at the end of Wednesday?

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$$20(1.15)(0.85)$$

$$\boxed{\$19.55}$$

Question 08

The population of a small city was  $p$  in 2000. The population rose 5% from 2000 to 2010. The population rose 10% from 2010 to 2020.

Select the expressions below that represent the population of the city in 2020. Select all that apply.

a)  $0.15p$

b)  $1.15p$

c)  $(1.05)(1.1)p$

d)  $2.15p$

e)  $1.155p$

$$p(1.05)(1.1)$$

$$p(1.155)$$

Question 09

The population of a small city was  $p$  in 2000. The population fell 7% from 2000 to 2010. The population fell 3% from 2010 to 2020.

Write an expression that represents the population of the city in 2020.

$$p(0.93)(0.97)$$

$$\boxed{0.9021p}$$

Question 10

The population of a big city was  $p$  in 2000. The population rose 12% from 2000 to 2010. The population fell 12% from 2010 to 2020.

Write an expression that represents the population of the city in 2020.

$$p(1.12)(0.88)$$

$$\boxed{0.9856p}$$