

Name: **ANSWERS!**

Class:



Communication



Successful Partnership



Encouragement



Solving Problem Together



Collaboration

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

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?

$$31.5 (1 + 0.2)(1 - 0.2)$$

$$31.5 (1.2)(0.8)$$

$$\$30.24$$

Question 02

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.

$$p(1.15)(1.1)$$

$$1.265p$$

a)  $0.25p$   
 b)  $1.25p$   
 c)  $(1.15)(1.1)p$   
 d)  $1.265p$   
 e)  $2.25p$

Question 03

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 04

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?

$$44 (1.1)(0.9)$$
$$\$43.56$$

Question 05

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?

$$80 (1.2) \cancel{(1.18)} (0.82)$$
$$\$78.72$$

Question 06

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)  $1.155p$

$$p(1.05)(1.1)$$
$$1.155p$$

Question 07

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.

$$p(0.93)(0.97)$$
$$0.9021p$$