Communication   Successful Partnership   Encouragement   Solving Problem Together   Collaboration

Lesson 10-5 Classwork

Calculators OK

$$\text{Original Amount} \left(1 +/- \text{Decimal Percent Change} \right) = \text{New Amount}$$

Question 01

The Rangers football team won 12 games this year, which represents an **increase** of 20% from last year. How many games did the football team win last year?

$$x(1+0.2) = 12$$
$$x1.2 = 12$$
$$\boxed{x = 10}$$

Question 02

The Knights football team won 12 games this year, which represents a **decrease** of 20% from last year. How many games did the football team win last year?
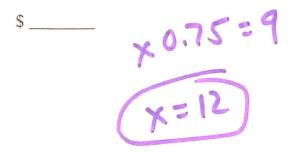
$$x(1-0.2) = 12$$
$$x0.8 = 12$$
$$\boxed{x = 15}$$

Question 03

A dress is on sale for $25.50. This represents a discount of 25%. What was the original price?

$$x(1-0.25) = 25.5$$
$$x0.75 = 25.5$$
$$\boxed{x = 34}$$

Question 04

A store buys a jacket from a designer, then applies a 20% markup to the price, then sells the jacket to its customers for $117.60. What was the price paid to the designer?
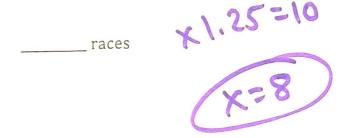
$$x(1+0.2) = 117.6$$
$$x1.2 = 117.6$$
$$\boxed{x = 98}$$

Question 05

A hat is on sale for $9. This represents a decrease of 25%. What was the original price?

$ _____
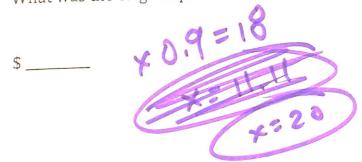
$x \cdot 0.75 = 9$

$x = 12$

Question 06

A swimming team won 10 races at a swimming competition this month. This represented a 25% improvement from last month's competition. How many races did the team win last month?
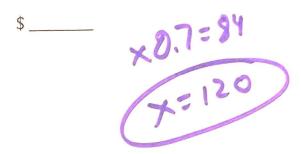
_____ races

$x \cdot 1.25 = 10$

$x = 8$

Question 07

A volleyball is on sale for $18. This represents a decrease of 10%. What was the original price?
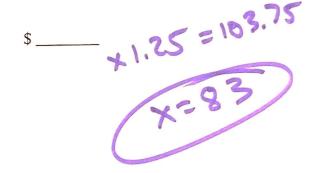
$ _____

$x \cdot 0.9 = 18$

$x = 11.11$

$x = 20$

Question 08

A share of stock is now worth $84, which represents an decrease of 30% from last year. What was the price of the stock last year?

$ _____

$x \cdot 0.7 = 84$

$x = 120$

Question 09

A share of stock is now worth $103.75, which represents an increase of 25% from last year. What was the price of the stock last year?

$ _____

$x \cdot 1.25 = 103.75$

$x = 83$

Question 10

A share of stock is now worth $42, which represents an increase of 20% from last year. What was the price of the stock last year?

$ _____

$x \cdot 1.2 = 42$

$x = 35$