Unit 6 Study Guide

Finding the Part

1. What is 15% of 23? b. What is 25% of 86? c. What is 30% of 79?

Finding the Percent

1. 30 is what percent of 70? b. 15 is what percent of 45? c. 22 is what percent of 120?

Finding the Whole

1. 30 is 60% of what number? b. 50 is 40% of what number? c. 75 is 20% of what number?

Discount

1. A jacket is normally $60, but is on sale for 30% off. If I have a coupon for an additional 10% off the discounted price, what will I pay for the jacket?
2. A cookie is normally $1.50, but is on sale for 25% off. If I have a coupon for an additional 50% off the discounted price, what will I pay for the cookie?
3. A pair of shoes is normally $120, but is on sale for 60% off. If I have a coupon for an additional 30% off the discounted price, what will I pay for the shoes?
4. A store is having a 20% off sale. If I bought a necklace for $37.60, what was the original price?
5. An amusement park is having a special where all their tickets are 60% off. If I paid $48 to go, how much was full price?

Mark Up

1. A store buys a pot for $5. They need to make 40% profit. How much should they sell it for?
2. A store buys a towel for $3. They want to make 50% profit. How much should they sell it for?
3. A store makes 60% profit. If they sold a pair of glasses for $19.20, how much did they buy them for?

Percent Change

Find the percent change of each:

1. 5 → 7 b. 6 → 2 c. 10 → 13

d. 38 → 57 e. 80 → 25 f. 12 → 8

Interest

1. If Bob borrows $500 and agrees to pay 3% simple interest weekly, how much interest will he pay after 3 weeks?
2. If Bob borrows $200 and agrees to pay 0.3% interest weekly, how much interest will he pay after 3 weeks?
3. If Bob borrows $500 and agrees to pay 0.3% interest weekly, how much interest will he pay after 12 weeks?

Proportions

1. If 5lbs of dog food costs $12.50, how much will 7lbs of dog food cost?
2. A shade of purple is made from mixing 1 part red to 2 parts blue. If I use 3 gallons of blue, how much red will I need?
3. If a car gets 22 miles per gallon, how much gas is used to go 100 miles?
4. $\frac{5}{x}=\frac{10.5}{6}$
5. $\frac{3}{8.2}=\frac{x}{5}$

Review – Graphs, Equations, Order of Operations

1. (On graph paper) graph y = 2x, graph y = 3x + 2, graph y = 3x – 1
2. Solve for x: 3x + 2x – 6 = -2x + 6
3. Solve for x: 2 – (3x + 2) = x + 5
4. Solve for x: 2 – 2(3x – 2) = x + 2
5. Solve for p: m + 2p = 6
6. Solve for U: 2x + 3U = 6
7. Solve for T: 2T + 3T – (x + 2) = T + 3
8. Simplify $6-3÷6∙2$
9. Simplify $12÷2(3+2)$

 6 - 7(0 - 1) ÷ 2