Ratios and percents Worksheet

Middle School Math

Name _____ Date _____

Warm-up

1. A car travels 183 miles in 3 hours. What's its speed, in miles per hour?

2. Write 89% as a decimal.

3. A $700 jacket is 20% off. What's the sale price, in dollars?

4. Fill the blank: $\frac{7}{10} = \frac{28}{\square}$

5. What is 10% of 5?

Practice

6. Red to blue is $2:3$, and there are 20 marbles in all. How many are red?

7. 60 is 30% of what number?

8. A price rises from $55 to $77. What's the percent increase?

9. 3 notebooks cost $18. How much do 8 notebooks cost?

10. A shirt costs $80. It's 75% off. How much do you save, in dollars?

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11. A $62 meal has 5% tax added. What's the total, in dollars?

12. Which is the better deal?
    (A) 5 for $15 (B) 7 for $20

13. 14 is what percent of 35?

Challenge

14. 2 workers paint a fence in 9 hours. At the same pace, how long does it take 6 workers, in hours?

15. 80 of 100 students walk to school, and 50% of the walkers wear hats. How many wear hats?

16. After a 20% discount, a shirt costs $80. What was the original price, in dollars?

17. You drive 84 miles at 42 mph, then 42 more at the same speed. How many hours in all?

18. Which is bigger: 40% of 150 or 150% of 40?
    (A) They're equal (B) The second (C) The first

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Ratios and percents Worksheet: Answer Key

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1. 61

   Unit rate: $183 \div 3$.

2. 0.89

   Divide by 100.

3. 560

   20% off leaves 80%.

4. 40

   The top was multiplied by 4, so the bottom must be too.

5. 5

   0.1×5.

6. 8

   Each group has 5 parts, so one part holds 4.

7. 200

   $60 = 0.3 \times n$, so divide by 0.3.

8. 40

   Change is 22. Divide by the original, 55.

9. 48

   One costs \$6, so multiply by 8.

10. 60

    Savings = 75% of the price.

11. 65.1

    Multiply by 1.05.

12. (B) 7 for \$20

    Unit prices: \$3 each for the first and less than that for the second.

13. 40

    $14 \div 35$, then multiply by 100.

14. 3

    It's 18 worker-hours of work. More workers means less time, so it's not a simple proportion.

15. 40

    Take the percent of the walkers, not of all the students.

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16. 100

    The sale price is 80% of the original: $80 \div 0.8$.

17. 3

    Hours are miles divided by speed: $126 \div 42$.

18. (A) They're equal

    Both multiply to the same thing: $40 \times 150 = 150 \times 40$.

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