Name _____ Class _____ Date _____

1-4

Additional Practice

Solve each equation. Check your answers.

1. $-4x + 7 = 11$

2. $17 = 5y - 3$

3. $-4 = 2p + 10$

4. $3m + 4 = 1$

5. $12.5 = 2g - 3.5$

6. $-13 = -h - 7$

7. $-6 = \frac{y}{5} + 4$

8. $\frac{7}{9} = 2n + \frac{1}{9}$

9. $-\frac{4}{5}t + \frac{2}{5} = \frac{2}{3}$

10. $-(x - 10) = 7$

11. $-2(b + 5) = -6$

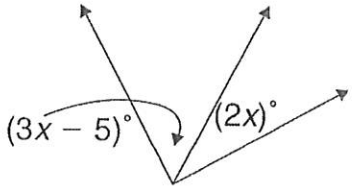
12. $8 = 4(q - 2) + 4$

13. If $3x - 8 = -2$, find the value of $x - 6$.

14. If $-2(3y + 5) = -4$, find the value of $5y$.

Answer each of the following.

15. The two angles shown form a right angle. Write and solve an equation to find the value of x.



16. For her cellular phone service, Vera pays $32 a month, plus $0.75 for each minute over the allowed minutes in her plan. Vera received a bill for $47 last month. For how many minutes did she use her phone beyond the allowed minutes?

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Problem Solving

Write the correct answer.

1. Stephen belongs to a movie club in which he pays an annual fee of $39.95 and then rents DVDs for $0.99 each. In one year, Stephen spent $55.79. Write and solve an equation to find how many DVDs *d* he rented.

2. In 2003, the population of Zimbabwe was about 12.6 million, which was 1 million more than 4 times the population in 1950. Write and solve an equation to find the population *p* of Zimbabwe in 1950.

3. Maggie's brother is three years younger than twice her age. The sum of their ages is 24. How old is Maggie?

4. Kate is saving to take an SAT prep course that costs $350. So far, she has saved $180, and she adds $17 to her savings each week. How many more weeks must she save to be able to afford the course?

Use the graph below to answer questions 5–7. Select the best answer. The graph shows the population density (number of people per square mile) of various states given in the 2000 census.

5. One seventeenth of Rhode Island's population density minus 17 equals the population density of Colorado. What is Rhode Island's population density?

   A 425 C 714

   B 697 D 1003

6. One more than sixteen times the population density of New Mexico equals the population density of Texas. To the nearest whole number, what is New Mexico's population density?

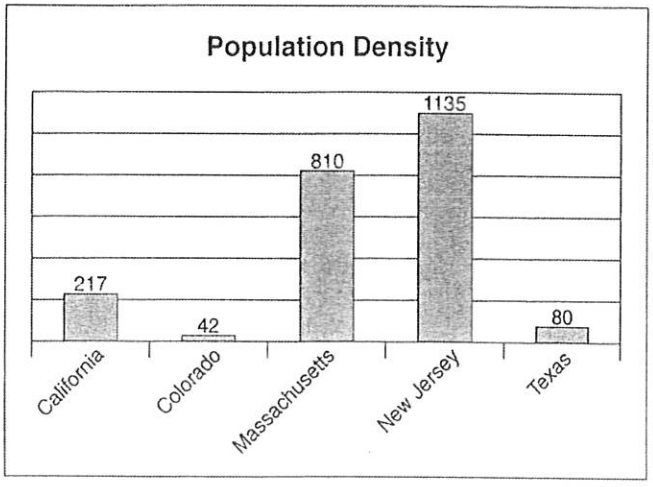
   F 5 H 13

   G 8 J 63

7. Three times the population density of Missouri minus 26 equals the population density of California. What is Missouri's population density?

   A 64 C 98

   B 81 D 729



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