Name Date

Practice A

5.3

Write a proportion to find how many points a student needs to earn on the test to get the given score.

1. test worth 70 points; test score of 90% 2. test worth 30 points; test score of 72%

Write a proportion to find how many free throws a player needs to get the given score.

3. 15 free-throw attempts; free-throw score of 60%

4. 24 free-throw attempts; free-throw score of 75%

Use the table to write a proportion.

|  |  |  |
| --- | --- | --- |
|  | **Day 1** | **Day 2** |
| **Wins** | *w* | 8 |
| **Races** | 21 | 12 |

|  |  |  |
| --- | --- | --- |
|  | **August** | **September** |
| **Hurricanes** | 2 | 1 |
| **Storms** | 6 | *n* |

5. 6.

7. The county requires 2 teachers for every 45 students. Write a proportion that gives the number *t* of teachers needed for 315 students.

Solve the proportion.

8.  9.  10. 

11. A paint color requires the ratio of green paint to yellow paint to be 4 : 9.

a. A container of this paint has 36 pints of yellow paint. Write a proportion that gives the number *g* of pints of green paint in the container.

b. How many pints of green paint are in the container?

c. How many *gallons* of paint are in the container altogether?

12. An orchestra has 10 cellists.

a. There are 3 violin players for every cellist in the orchestra. How many violin players are there?

b. There are 6 viola players for every 5 cellists in the orchestra. How many viola players are there?

c. What is the ratio of viola players to violin players? Give your answer in simplest form.

13. Give two possible pairs of values for *p* and *q*: .

Name Date

Practice B

5.3

In Exercises 1 and 2, write a proportion to find how many strikes a bowler needs to get the given score.

1. 32 strike attempts; strike score of 75%

2. 80 strike attempts; strike score of 95%

3. Describe and correct the error in writing   
the proportion.



|  |  |  |
| --- | --- | --- |
|  | **Day 1** | **Day 2** |
| **Length** | 3.1 | 15.5 |
| **Height** | *h* | 45 |

4. There are 3 referees for every 16 players.   
Write a proportion that gives the number   
of referees *r* for 128 players.

Solve the proportion.

5.  6.  7. 

8.  9.  10. 

11. A recipe calls forcup of sugar andcup of brown sugar. You are reducing the recipe. You will usecup of brown sugar. How much sugar will you use?

12. A calculator has 50 keys in five colors: gray, black, blue, yellow, and green.

a. There are 6 gray keys for every 7 blue keys. Write the possible ratios for gray to blue keys.

b. There are 6 gray keys for every 11 black keys. Write the possible ratios for gray to black keys.

c. There are 6 gray keys for every 11 black keys. Also, the number of black keys is 2 less than twice the number of gray keys. Use your answer to part (b) to determine how many gray keys and how many black keys there are.

d. There is 1 yellow key for every 1 green key. How many keys of each color are there?