

## 7.RP.A.3 Solve Problems With Unknown Base or Percentage

7.RP.A.3 Use proportional relationships to solve multistep ratio and percent problems.

1. The table shows responses to a survey of registered voters.

Candidate	Registered Voters Planning to Vote for Candidate
Warren	329
Largo	462
Fredricks	264

Find the sample proportion for voters favoring Fredricks as a decimal and as a percent.

2. In 1994, there were 60,239,000 women in the civilian labor force. Of those women, 3,585,000 were 16 to 19 years of age. What percent of the women in the labor force were 20 years or older?
3. In 1992, U.S. farmers produced 240,774,000 metric tons of corn. Suppose a farmer produced 1,655,000 metric tons of corn. What percent of the 1994 U.S. corn production did the farmer raise? Round your answer to the nearest tenth of a percent.
4. A survey showed that 56% of car owners prefer four-door cars, 31% prefer two-door cars, and 13% have no preference. You ask 500 people. How many do you think will prefer four-door cars?  
[A] 280 [B] 56 [C] 44 [D] 444
5. In a random selection, 25% of the people polled preferred talk radio. If a total of 119 people polled preferred talk radio, how many people were polled?
6. In a random selection, 40% of the people polled preferred the music of Mozart. If a total of 238 people polled preferred the music of Mozart, how many people were polled?
7. In a random selection, 20% of the people polled preferred Brand A. If a total of 119 people polled preferred Brand A, how many people were polled?
8. A golf group planned a trip to Hawaii and 7 of the members signed up to go. If this is 10% of the club, how many members does the golf group have in total?  
[A] 700 members [B] 70 members  
[C] 7 members [D] 1 members
9. A ski club planned a trip to Lake Tahoe and 24 of the members signed up to go. If this is 20% of the club, how many members does the ski club have in total?  
[A] 120 members [B] 5 members  
[C] 12 members [D] 1200 members
10. A golf group planned a trip to Palm Springs and 96 of the members signed up to go. If this is 60% of the club, how many members does the golf group have in total?  
[A] 58 members [B] 16 members  
[C] 1600 members [D] 160 members

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### Answer Key

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- [1] 0.2502; 25.02%  
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- [2] about 94%  
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- [3] 0.7%  
\_\_\_\_\_
- [4] A  
\_\_\_\_\_
- [5] 476 were polled  
\_\_\_\_\_
- [6] 595 were polled  
\_\_\_\_\_
- [7] 595 were polled  
\_\_\_\_\_
- [8] B  
\_\_\_\_\_
- [9] A  
\_\_\_\_\_
- [10] D  
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