

**TEST REVIEW WORD PROBLEMS**  
**USING AVERAGE, PROPORTIONS, and UNIT RATE**

**ANSWERS**

1. If the average of three numbers is  $V$ . If one of the numbers is  $Z$  and another is  $Y$ , what is the remaining number?  
A.  $ZY - V$    B.  $\frac{Z}{V} - 3 - Y$    C.  $\frac{Z}{3} - V - Y$    **D.  $3V - Z - Y$**    E.  $V - Z - Y$
2. Two cyclists start biking from a trail's start 3 hours apart. The second cyclist travels at 10 miles per hour and starts 3 hours after the first cyclist who is traveling at 6 miles per hour. How much time will pass before the second cyclist catches up with the first from the time the second cyclist started biking?  
A. 2 hours   **B.  $4\frac{1}{2}$  hours**   C.  $5\frac{3}{4}$  hours   D. 6 hours   E.  $7\frac{1}{2}$  hours
3. Jim can fill a pool carrying buckets of water in 30 minutes. Sue can do the same job in 45 minutes. Tony can do the same job in  $1\frac{1}{2}$  hours. How quickly can all three fill the pool together?  
A. 12 minutes   **B. 15 minutes**   C. 21 minutes   D. 23 minutes   E. 28 minutes
4. What is the mathematical average of the number of weeks in a year, seasons in a year, and the number of days in January?  
A. 36   B. 33   C. 32   D. 31   **E. 29**
5. A study reported that in a random sampling of 100 women over the age of 35 showed that 8 of the women were married 2 or more times. Based on the study results, how many women in a group of 5,000 women over the age of 35 would likely be married 2 or more times?  
A. 55   B. 150   C. 200   **D. 400**   E. 600
6. John is traveling to a meeting that is 28 miles away. He needs to be there in 30 minutes. How fast does he need to go to make it to the meeting on time?  
A. 25 mph   B. 37 mph   C. 41 mph   D. 49 mph   **E. 56 mph**
7. If Steven can mix 20 drinks in 5 minutes, Sue can mix 20 drinks in 10 minutes, and Jack can mix 20 drinks in 15 minutes, how much time will it take all 3 of them working together to mix the 20 drinks?  
**A. 164 seconds**   B. 178 seconds   C. 190 seconds   D. 206 seconds   E. 255 seconds
8. If Sam can do a job in 4 days that Lisa can do in 6 days and Tom can do in 2 days, how long would the job take if Sam, Lisa, and Tom worked together to complete it?  
A. 0.8 days   **B. 1.09 days**   C. 1.23 days   D. 1.65 days   E. 1.97 days