

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

NAME:

- 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.**  $V - Z - Y$
- 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
- 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
- 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
- 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
- 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
- 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
- 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