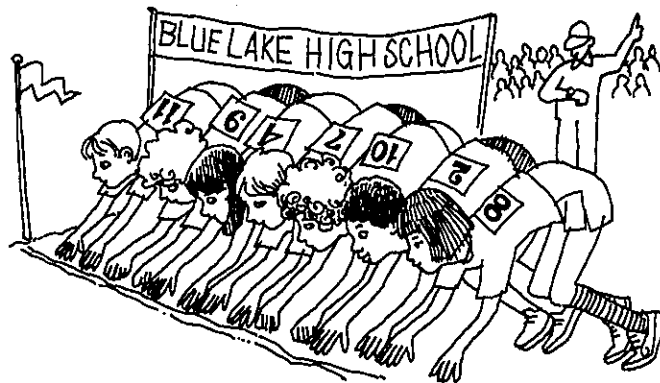


Whizzing Along

The students at Blue Lake High are on the move. Read about what they did. Then answer the questions to see how much you know about speed and related subjects.

Seven students ran a 10-kilometer race to raise money for their student council. The chart below gives their starting times, finish times, and distances.



Runner	Distance, km	Starting Time	Finish Time	Total Time, min	Speed, km/min
Maria	10	9:16	10:23		
Sam	10	9:16	10:26		
Cindy	10	9:16	10:17		
Rick	10	9:16	10:19		
Tony	10	9:16	10:21		
Sue	10	9:16	10:30		
Betsy	10	9:16	10:28		

Find the total time and the average speed at which each student ran the race. Write this information in the table.

1. Rank the runners in order according to the speed with which they ran the race. Begin with the fastest. _____

Who won? _____

2. The students' track coach wanted to find out the acceleration at which the fastest students began the race. She found that after 0.75 minute Cindy, Rick, and Tony had reached their top speed. (Remember that acceleration = $\frac{\text{change in velocity}}{\text{time}}$.) The track coach found that Cindy's final velocity was 0.170 km/min. She calculated Cindy's acceleration like this:

$$\begin{aligned}
 \text{Initial velocity} &= 0 \text{ km/min} \\
 \text{Final velocity} &= 0.170 \text{ km/min} \\
 \text{Time} &= 0.75 \text{ min} \\
 \text{Acceleration} &= \frac{0.170 \text{ km/min} - 0}{0.75 \text{ min}} \\
 &= 0.227 \text{ km/min/min}
 \end{aligned}$$

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CHAPTER 1 SKILL

Objective: To reinforce vocabulary development by means of a puzzle

NAME _____

CLASS _____

DATE _____

Cluing You In Word Skill: Vocabulary

Complete the crossword puzzle using the clues below.

ACROSS

1. Has many trials, many controls, one variable
2. Machine that follows instructions
3. Parts of an experiment that stay the same
4. Number of times an experiment is done
5. A statement about facts
6. Part of an experiment that changes
7. Metric base unit for length
8. Metric base unit for mass
9. Curve of liquid in a graduated cylinder
10. Scientific guess

DOWN

7. System of measurement used in science
9. An orderly way to solve a problem is the scientific _?_.
11. Use of science in real-life situations
12. Science that studies matter and energy
13. True quantity of matter
14. Repeatable observation
15. Metric base unit for volume
16. Where a scientist works

