



The BIG Race

Today is the “The BIG Race”! You will be given a card that describes how you travel in the race.

Your Task: As a team, do the following:

- Draw a graph (on graph paper) showing all of the racers’ progress over time.
- Use a different colored pencil for each student.
- Identify the independent and dependent variables.
- Figure out who will win the race!



Rules:

- Your team must work cooperatively to solve the problems. No team member has enough information to solve the puzzle alone!
- Each member of the team will select rider A, B, C, D or E. You may not show your card to your team. You may only communicate the information contained on the card.
- Assume that each racer travels at a constant rate throughout the race.
- If you have fewer than 5 team members, assign 2 cards as needed.

Use your results from “The BIG Race” to answer the following questions. You may answer the questions in any order, but be sure to justify each response.

1. Who won “The BIG Race”? How did you determine the winner?
2. Who came in last place? How did you determine the student that came in last?
3. How many meters was the race? Explain how you determined the length of the race.
4. How fast was each rider traveling?
 - a. Student A:
 - b. Student B:
 - c. Student C:
 - d. Student D:
 - e. Student E:
 - f. The Teacher:
5. At the point (7,14) two lines intersect. What is the significances of this point? What does it represent with respect to the race?
6. Continuing with the same rates will Student C ever pass Student B? Why or Why not. What is significant about the graphs of these two students?
7. Write an equation in the form of $y = mx + b$ for each rider.
 - a. Student A:
 - b. Student B:
 - c. Student C:
 - d. Student D:
 - e. Student E:
 - f. The Teacher:
8. What does slope represent in this problem? What does the y-intercept represent? What does the x-intercept represent?