

Activity 2: Speeds of the Coca-Cola 600 (20 minutes)

Instructional Routine: Three Reads (MLR 6)

Addressing: NC.M2.A-SSE.1a; NC.M2.A-CED.2; NC.M2.F-BF.1; NC.M2.F-IF.7

This activity provides students with a contextual inverse variation relationship. Students are asked to think about this relationship in a table, graph, and equations as they work on the task. Additionally, students should be encouraged to describe the pattern of change as it appears in each of these representations and be able to relate the pattern of change to the context it describes.

Step 1

- Use the *Three Reads* routine to get students started. This should be a quick routine to help orient students to the context of a NASCAR race. Encourage students to take notes in their Student Workbook.



Why This Routine? *Three Reads* (MLR6) gives students a chance to use everyday language to help each other make sense of the context—and the language—of a word problem before jumping down a solution path. Use this routine to ensure that students know what they are being asked to do, and to create an opportunity for students to reflect on the general structure of quantitative situations and on the ways mathematical questions are presented. This routine supports reading comprehension of problems and meta-awareness of mathematical language. It also supports negotiating information in a text with peers through mathematical conversation.

- First Read: Without displaying the problem, read only the prompt aloud to the class:

The Coca-Cola 600 is an annual 600-mile NASCAR Cup Series race held at the Charlotte Motor Speedway in Concord, North Carolina. The first race was held in 1960. The Coca-Cola 600 is the longest distance race on NASCAR's schedule.

- Joe Lee Johnson was the first winner of the race in 1960 with an average speed of 108 miles per hour.
 - In 2017, Martin Truex Jr was the winner with a record setting average speed of approximately 161 miles per hour.
- Ask students: "What is this situation about? What is going on here?" (Orient students to the race situation and maybe how cars are getting faster over time)
 - Spend less than a minute scribing their understanding of the situation in a place where all can see. Do not correct students, but do clarify any unfamiliar words; visuals often help (for example, a picture of a race car or the Charlotte Motor Speedway or a short video).
- Second Read: Display the student task statement and ask a student volunteer to read it aloud to the class. This read should include the prompt and question 1.
 - Ask: "What are the quantities in this situation? A quantity is something that can be counted or measured."