Primary Type: Problem-Solving Task

Robot Races

Students should use information provided to answer the questions regarding robot races.

Robot Races (Microsoft Word): This file includes the task and related information in Microsoft Word format.
Robot Races (PDF): This file includes the task and related information in PDF format.

General Information

Subject(s): Mathematics
Grade Level(s): 7
Intended Audience: Educators , Students , Parents

Instructional Time: 10 Minute(s)

Freely Available: Yes

Keywords: Robot Races, robot, races, speed, constant, ratio, cpalms, icpalms, illustrativemathematics.org, illustrative mathematics, tasks, mathematics, math, Florida standards, resource, free, freely available, problems-based learning, student activities, proportion, linear relationship
Instructional Component Type(s): Problem-Solving Task

Resource Collection: Illustrative Mathematics

Source and Access Information

Contributed by: Brian Carmichael
Name of Author/Source: Michael Lingenfelter
District/Organization of Contributor(s): FSU Lab School
Is this Resource freely Available? Yes
Access Privileges: Public
License: CPALMS License - no distribution - non commercial

Aligned Standards

Name	Description
	Recognize and represent proportional relationships between quantities.
	a. Decide whether two quantities are in a proportional relationship, e.g., by testing for equivalent ratios in a table or graphing on a coordinate plane and observing whether the graph is a straight line through the origin.
	b. Identify the constant of proportionality (unit rate) in tables, graphs, equations, diagrams, and verbal descriptions of proportional relationships.
	c. Represent proportional relationships by equations. For example, if total cost t is proportional to the number n of items purchased at a constant price p, the relationship between the total cost and the number of items can be expressed as $t = pn$.
MAFS.7.RP.1.2:	d. Explain what a point (x, y) on the graph of a proportional relationship means in terms of the situation, with special attention to the points (0, 0) and (1, r) where r is the unit rate.

Clarifications:
Examples of Opportunities for In-Depth Focus

Students in grade 7 grow in their ability to recognize, represent, and analyze proportional relationships in various ways, including by using tables, graphs, and equations.