Primary Type: Problem-Solving Task

Modeling with a Linear Function

The primary purpose of this task is to elicit common misconceptions that arise when students try to model situations with linear functions. This task, being multiple choice, could also serve as a quick assessment to gauge a class' understanding of modeling with linear functions.

Modeling with a Linear Function (Microsoft Word: This file includes the task and related information in Microsoft Word format.
Modeling with a Linear Function (PDF): This file includes the task and related information in PDF format.

General Information

Subject(s): Mathematics
Grade Level(s): 8
Intended Audience: Educators , Students , Parents

Instructional Time: 10 Minute(s)

Freely Available: Yes

Keywords: Modeling with a Linear Function, modeling, linear, function, cpalms, icpalms, illustrativemathematics.org, illustrative mathematics, tasks, mathematics, math, Florida standards, resource, free, freely available, problems-based learning, student activities
Instructional Component Type(s): Problem-Solving Task

Resource Collection: Illustrative Mathematics

Source and Access Information

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

Aligned Standards

Name	Description
MAFS.8.F.2.4:	Construct a function to model a linear relationship between two quantities. Determine the rate of change and initial value of the function from a description of a relationship or from two (x, y) values, including reading these from a table or from a graph. Interpret the rate of change and initial value of a linear function in terms of the situation it models, and in terms of its graph or a table of values.
MAFS.8.F.2.5:	Describe qualitatively the functional relationship between two quantities by analyzing a graph (e.g., where the function is increasing or decreasing, linear or nonlinear). Sketch a graph that exhibits the qualitative features of a function that has been described verbally.