

**Math Grade 10 D**

**Grade Level Standard(s):**

KY.HS.SP.6

**Materials:**

- Math 10 D Math Scatter Plot
- Math 10 D Attainment Task Questions for Student Use

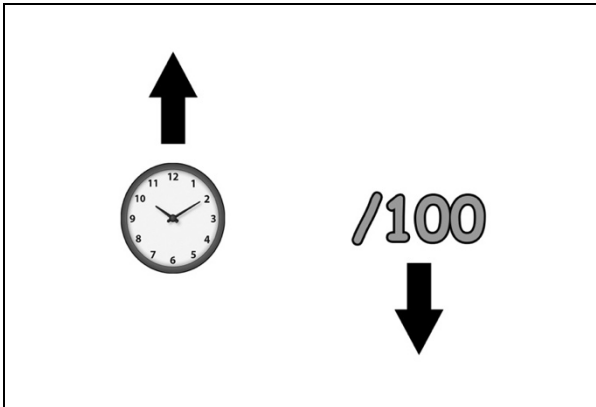
**Response Code:**

- Indicate the answer provided by the student.

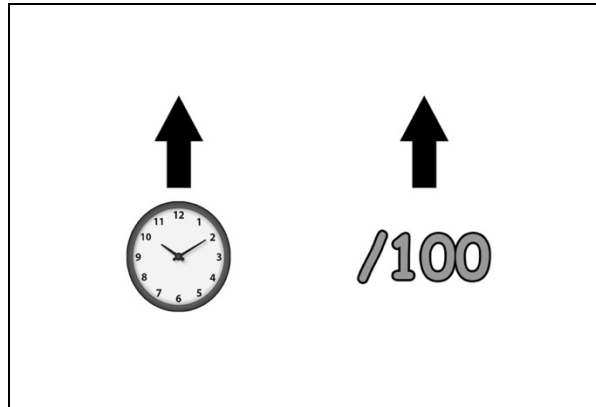
**Text Coding:**

- “Quotation marks” indicate the script that the teacher should read to the student.
- *Italicized text* provides further direction for the test administrator.
- Words in parenthesis ( ) are optional; they may replace or be read in addition to the word(s) immediately preceding.

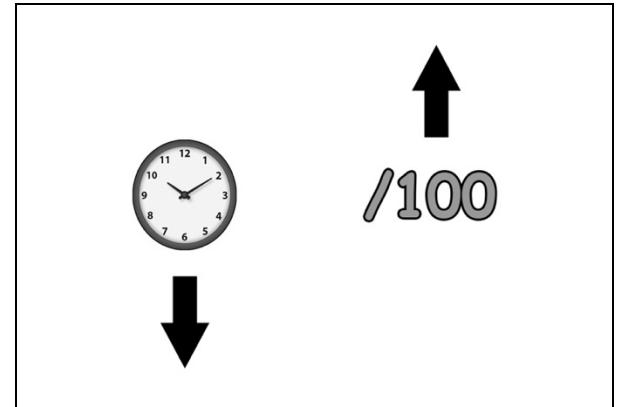
a. As the number of hours Bebe studies goes up, her test scores go down.



b. As the number of hours Bebe studies goes up, her test scores go up.



c. As the number of hours Bebe studies goes down, her test scores go up.



Before beginning task administration, please ensure that all conditions specified in the administration protocol (starting on page 10 of the Administration Guide Overview and Attainment Task Administration) have been met. Inform the student that the task is about to start by saying, “We are about to start the task, and I am going to ask you some questions.”

All questions from this task are available for presentation to the student in the supplemental material Math 10 D Attainment Task Questions for Student Use.

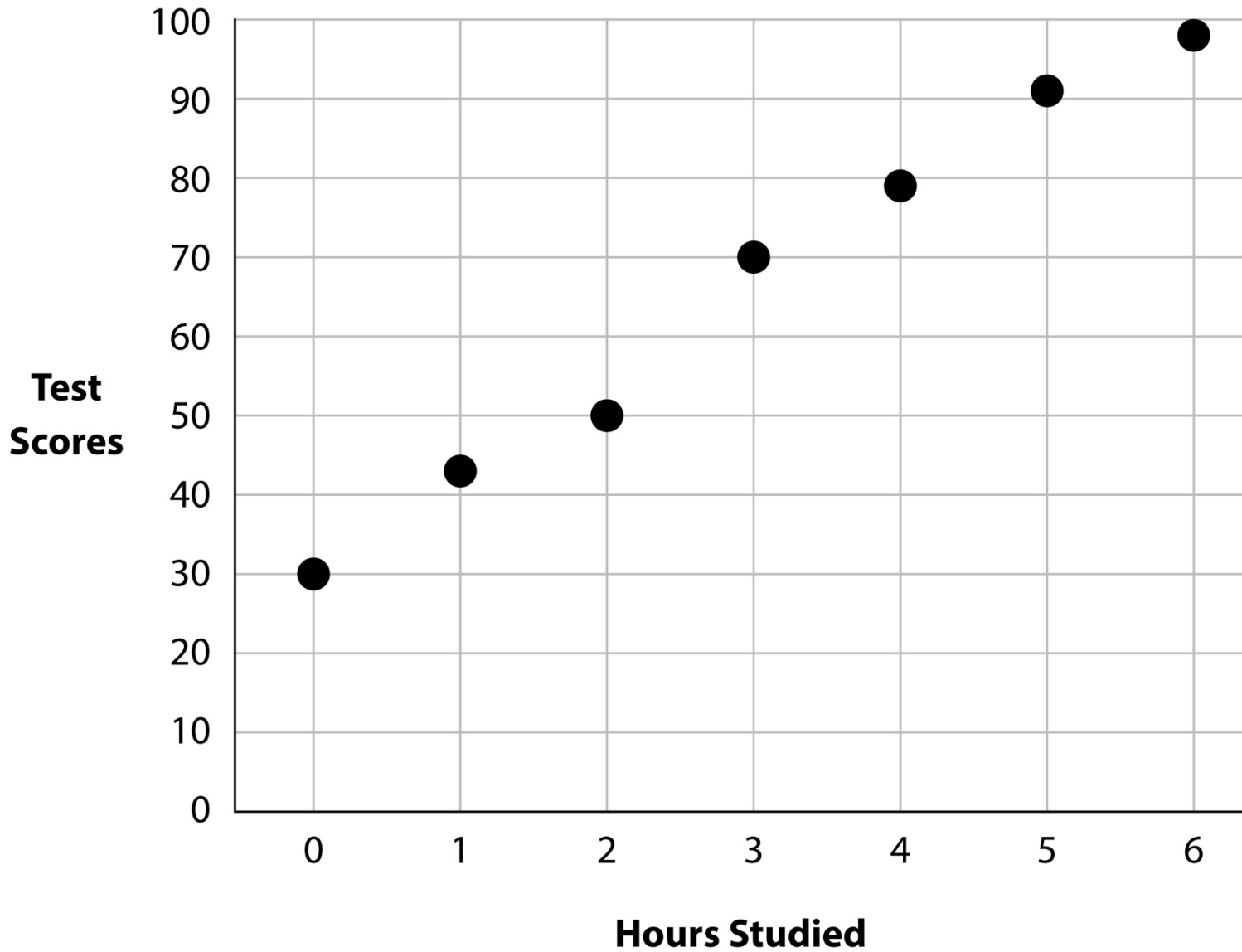
“Bebe is taking math at her high school. She is keeping track of the number of hours she studies, and her math test scores on a scatter plot.”

Present the student with Math 10 D Scatter Plot.

3. “Interpret the relationship between hours studied and test scores.”

Response Option	Response Rationale
a. As the number of hours Bebe studies goes up, her test scores go down.	<i>The student attempts to describe how the explanatory and response variables are related but incorrectly describes an inverse relationship.</i>
b. As the number of hours Bebe studies goes up, her test scores go up. <b>(Correct)</b>	<i>The student correctly describes how the explanatory and response variables are related as a positive direct relationship.</i>
c. As the number of hours Bebe studies goes down, her test scores go up.	<i>The student attempts to describe how the explanatory and response variables are related but incorrectly describes a negative direct relationship.</i>
<b>Depth of Knowledge (DOK) 2</b>	

Math 10 D Scatter Plot



**Math 10 D Attainment Task Questions for Student Use**

3. Interpret the relationship between hours studied and test scores.

**Kentucky Academic Standard:** KY.HS.SP.6 Represent data on two quantitative variables on a scatter plot and describe how the explanatory and response variables are related.

- Calculate an appropriate mathematical model, or use a given mathematical model, for data to solve problems in context.
- Informally assess the fit of a model (through calculating correlation for linear data, plotting, calculating and/or analyzing residuals). **MP.3, MP.4, MP.5**

**Alternate Assessment Target:**

- Limit to a given mathematical model in quadrant one*
- Limit comparison to examining the plot of the original data*

<b>Student Group</b>	<b>Number of Students*</b>	<b>Percent Correct</b>
<b>All students</b>	547	57.77%
<b>Gender</b>		
Female	194	62.37%
Male	353	55.24%
<b>Ethnicity</b>		
African American	59	54.24%
American Indian or Alaska Native	<10	Not Reported
Asian	14	64.29%
Hispanic or Latino	<10	Not Reported
Native Hawaiian or Pacific Islander	<10	Not Reported
White (non-Hispanic)	407	58.23%
Two or More Races	66	56.06%
<b>English Learner</b>	23	47.83%
<b>Economically Disadvantaged</b>	447	58.17%

\*Number of Students that attempted the item