Content Standard	*MAFS.8.SP* *Statistics and Probability*
	MAFS.8.SP.1 *Investigate patterns of association in bivariate data.*
	MAFS.8.SP.1.3 Use the equation of a linear model to solve problems in the context of bivariate measurement data, interpreting the slope and intercept. *For example, in a linear model for a biology experiment, interpret a slope of 1.5 cm/hr as meaning that an additional hour of sunlight each day is associated with an additional 1.5 cm in mature plant height.*
Assessment Limits	Numbers in items must be simple rational numbers (e.g., $\frac{1}{2}$, $\frac{1}{4}$, to the 10th). Data are required for all items. In all items requiring a line of best fit, the equation of that line should be given.
Calculator	Neutral
Item Types	Equation Editor Multiple Choice Multiselect Open Response
Context	Required

Sample Item	Item Type
The slope of the line of best fit for the data shown is $\frac{3}{2}$.	Multiselect

Hours	Total Snow Accumulated (inches)
1	1.7
2	2.9
3	4.4
4	6.2
5	7.5
6	8.9
7	10.3
8	11.9

What is the meaning of $\frac{3}{2}$ in terms of the context?

☐   After $\frac{3}{2}$ hours the snow begins.

☐   It snows exactly $\frac{3}{2}$ inches each hour.

☐   The snow is accumulating at about $\frac{3}{2}$ inches per hour.

☐   The snow height increases by about $\frac{3}{2}$ inches each hour.

☐   The ground has $\frac{3}{2}$ inches of snow before the data starts.

Sample Item	Item Type
	Open Response

The amount of money Alan earns as a plumber after x hours is modeled by the equation $y = \$25x + \$50$.

What is the meaning of $25 in this model?