

Model Builder Answer Key

Graphs and equations may vary slightly.

A reasonable best-fit model is approximately:

$$y = 4x + 10$$

Example points on the fitted line: (0, 10) and (10, 50).

$$\text{Slope: } m = (50 - 10) / (10 - 0) = 4.$$

For 12 hours:

$$y = 4(12) + 10 = 58$$

Predicted cost: about \$58.

Accept nearby equations and predictions supported by a reasonable line of best fit.

Teacher's Guide

- Have students plot all 10 points before considering where the best-fit line should go.
- Remind students that the line should follow the overall trend and balance the points above and below it.
- For extra support, suggest choosing two easy-to-read grid points on the fitted line when calculating slope.
- For a challenge, have students compare their informal model with a classmate's and explain why both may be reasonable.
- Increase engagement by framing the final prediction as a price estimate for a bike rental customer.
- Extend the activity by asking students whether the 12-hour prediction is interpolation or extrapolation and how that affects its reliability.