

Cool Drink Forecast Answer Key

1. 45 drinks; More reliable
2. 59 drinks; More reliable
3. 75 drinks; More reliable
4. 91 drinks; More reliable
5. 105 drinks; Less reliable
6. 115 drinks; Less reliable

Predictions from 65°F to 90°F are within the observed data range and are generally more reliable. Predictions outside that range use extrapolation and are generally less reliable.

Teacher's Guide

- Have students substitute each temperature for x in the best-fit equation before judging reliability.
- Reinforce that predictions within the observed 65°F to 90°F range use interpolation.
- For extra support, have students mark which temperatures fall inside and outside the observed range before calculating.
- For a challenge, ask students to explain why the 100°F prediction is less reliable than the 80°F prediction.
- Increase engagement by having students act as food truck managers deciding how many drinks to prepare for different temperatures.
- Extend the activity by asking students to use the model to find the predicted sales at 75°F and 85°F.