

## Prediction Zone Answer Key

1. 260 calories; Interpolation
2. 500 calories; Extrapolation
3. 350 calories; Interpolation
4. 140 calories; Extrapolation
5. 410 calories; Interpolation
6. 560 calories; Extrapolation
7. 230 calories; Interpolation
8. 170 calories; Extrapolation

## Teacher's Guide

- Have students substitute each x-value into the best-fit equation before classifying the prediction.
- Reinforce that interpolation uses x-values within the original 20 to 60 minute data range, while extrapolation uses values outside that range.
- For extra support, have students label 20 to 60 as the interpolation zone before beginning.
- For a challenge, ask students why extrapolated predictions may become less reliable as they move farther from the original data.
- Increase engagement by having students predict the classification before completing each calculation.
- Extend the activity by having students choose two new x-values, one inside and one outside the original range, and calculate both predictions.