

Name: _____

Date: _____

Models predict, but not perfectly. Extrapolating far outside the data is risky. Round sensibly for the context. Last two are challenge problems.

- 1.** A model predicts a plant is 200 ft tall in 50 years. Realistic?

show your work

- 2.** A line fits data from years 1-5. Predicting year 100 is called?

show your work

- 3.** Predicting inside the data range (year 3 of 1-5) is called?

show your work

- 4.** A model gives 4.7 buses needed. How many buses actually?

show your work

5. A model says 12.3 people attend. Report as?

show your work

6. Why might a good linear model still mispredict a single data point?

show your work

7. A population model fits for 10 years. Is predicting 200 years out reliable? Why?

show your work

8. A cooling-coffee model predicts a temperature BELOW room temperature. What's wrong?

show your work

9. Ticket sales model predicts $\$8.6$ ★ CHALLENGE
sold at \$5 each. State a sensible
sales count AND revenue.

show your work

10. A model $r = 0.99$ fits ages 5-12 for ★ CHALLENGE
height. Explain why using it to
predict an adult's height at age 40
fails.

show your work