

Name \_\_\_\_\_

Date \_\_\_\_\_ Pd. \_\_\_\_\_

**Notes: Lines of Best Fit Day 2**

|                      |   |
|----------------------|---|
| <b>Best-fit Line</b> | Using a _____ method to find the line of fit that most closely _____ the _____. |
|----------------------|---|

**Finding the Line of Fit using a Graphing Calculator****STEP 1****Entering Data & Line of Fit**

- **STAT (EDIT)**
- **x-values in L<sub>1</sub>**

y-  
values in L<sub>2</sub>

- **STAT (CALC)**
- **LinReg (ax + b)**
- **ENTER**
- **VARs**
- **Y-VARS**
- **ENTER (3 Times)**

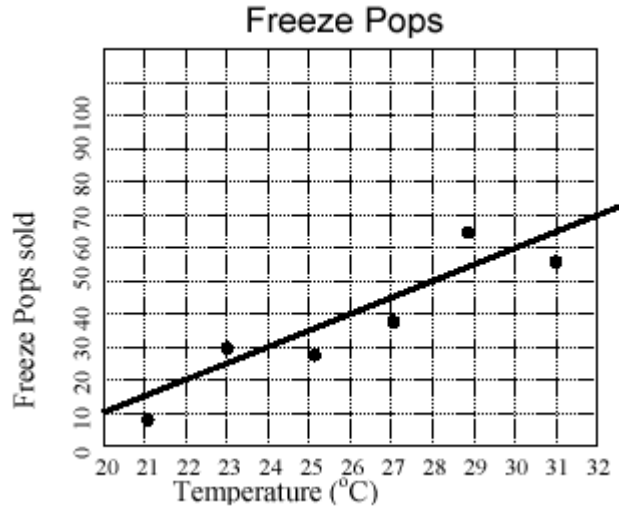
**STEP 2****Making Predictions**

- **TABLE (2<sup>nd</sup> Graph)**

Name \_\_\_\_\_

Date \_\_\_\_\_ Pd. \_\_\_\_\_

### Exit Card: Lines of Best Fit Day 2



The graph shows a scatter plot of the number of freeze pops sold and temperature, as well as a line of fit for the data.

According to the *line of fit*, at what rate do sales of freeze pops increase for each increase in one degree in temperature?

According to the *line of fit*, what temperature will result in 60 freeze pops being sold?

Rate:

|   |   |   |   |   |
|---|---|---|---|---|
|   |   |   |   |   |
|   |   |   |   |   |
|   |   |   |   |   |
| 0 | 0 | 0 | 0 | 0 |
| 1 | 1 | 1 | 1 | 1 |
| 2 | 2 | 2 | 2 | 2 |
| 3 | 3 | 3 | 3 | 3 |
| 4 | 4 | 4 | 4 | 4 |
| 5 | 5 | 5 | 5 | 5 |
| 6 | 6 | 6 | 6 | 6 |
| 7 | 7 | 7 | 7 | 7 |
| 8 | 8 | 8 | 8 | 8 |
| 9 | 9 | 9 | 9 | 9 |

Temperature:

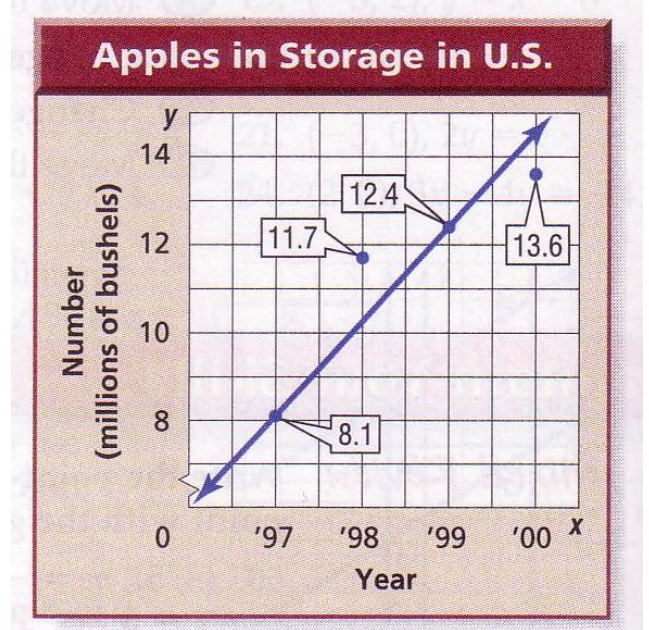
|   |   |   |   |   |
|---|---|---|---|---|
|   |   |   |   |   |
|   |   |   |   |   |
|   |   |   |   |   |
| 0 | 0 | 0 | 0 | 0 |
| 1 | 1 | 1 | 1 | 1 |
| 2 | 2 | 2 | 2 | 2 |
| 3 | 3 | 3 | 3 | 3 |
| 4 | 4 | 4 | 4 | 4 |
| 5 | 5 | 5 | 5 | 5 |
| 6 | 6 | 6 | 6 | 6 |
| 7 | 7 | 7 | 7 | 7 |
| 8 | 8 | 8 | 8 | 8 |
| 9 | 9 | 9 | 9 | 9 |

Name \_\_\_\_\_

Date \_\_\_\_\_ Pd. \_\_\_\_\_

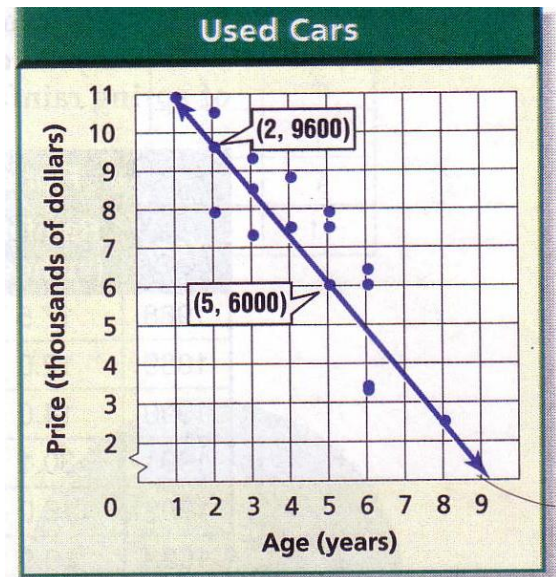
**Homework: Pages 302 – 303 (14 – 17, 24 – 28)**

14. Use the points (1997, 8.1) and (1999, 12.4) to write the slope-intercept form of an equation for the line of fit.



15. Predict the number of bushels of apples in storage in 2002.

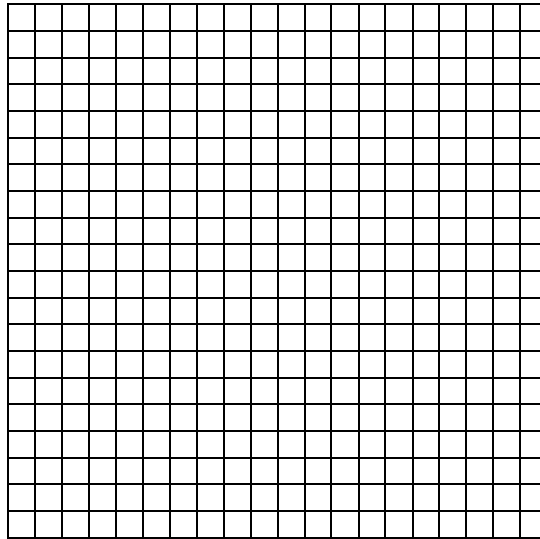
16. Use the points (2, 9600) and (5, 6000) to write the slope-intercept form of an equation for the line of fit shown in the scatter plot.



17. Predict the price of a car that is 7 years old.

| Federal Spending on Space and Other Technologies |      |      |      |      |      |      |      |      |
|--|------|------|------|------|------|------|------|------|
| Year   | 1980 | 1985 | 1990 | 1995 | 1996 | 1997 | 1998 | 1999 |
| Spending<br>(billions of dollars)                | 4.5  | 6.6  | 11.6 | 12.6 | 12.7 | 13.1 | 12.9 | 12.4 |

24. Draw a scatter plot and determine what relationship, if any, exists in the data.



25. Draw a line of fit for the scatter plot.
26. Let  $x$  represent the number of years since 1980. Let  $y$  represent the spending in billions of dollars. Write the slope-intercept form of the equation for the line of fit.
27. Predict the amount that will be spent on space and other technologies in 2005.
28. The government projects spending of \$14.3 billion in space and other technologies in 2005. How does this compare to your prediction?