$\qquad$ Period: $\qquad$ Date: $\qquad$

## Assignment 4.7

1. 

| Weeks since <br> school started | Money in savings <br> (thousands) |
| :--- | :--- |
| 1 | 200 |
| 3 | 175 |
| 4 | 162 |
| 7 | 120 |
| 10 | 87 |
| 13 | 57 |
| 20 | 5 |


a. Use the data in the table above to make a scatter plot on the given graph.
b. Is the correlation of the graph positive or negative? How can you tell?
c. What is the strength of the correlation coefficient? How can you tell?
d. Find the average point and use it to draw a line of best fit. $(\bar{x}, \bar{y}):$
e. Find an equation for the line of best fit that you drew.
f. Using the equation you found in (e), predict the amount of money the school will have in 17 weeks.
2. Below is the data for women with a bachelor's degree of more from 2000-2011.

| Year | 2011 | 2010 | 2009 | 2008 | 2007 | 2006 | 2005 | 2004 | 2003 | 2002 | 2001 | 2000 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Income <br> for <br> Women <br> $(\$)$ | 41338 | 42409 | 42746 | 42620 | 44161 | 44007 | 42690 | 42539 | 42954 | 42871 | 42992 | 43293 |

Find the average point of the data.

Refresh your memory.
Simplify
3. $8+(2-9)-6$
4. $\frac{43-1}{4+2}+10$
5. $2+4(3+8)+1$

Solve for the given letter
6. $r=d \cdot t$, solve for $d$
7. $a b+c=d$, solve for $b$
8. $\quad V=\frac{1}{3} h \pi r^{2}$, solve for $h$.

