Speed, Accuracy and Amazingness, Well Awesomeness Also!!!

We have several different forms of a linear equation that we have discussed and used.
We need to know how to be even more AMAZING in our math skills.
There are times that one form of a linear equation is easier to make than another. Sometimes it is best to transform an equation into a different form and sometimes it is much faster and easier to leave it alone and read the features off from it.

We will focus on making equations, graphs and tables from given information.
Our goal is to be AMAZINGLY efficient!!!

Making equations.
Determine which equation best fits the story.

1. Carlos and Clarita plan to invest much of the $1280 they earned from their last business venture to purchase cat pens and dog runs. It will cost $32 for each cat pen and $80 for each dog run. Make an equation to model this situation.

$$y = -.4x + 16 \qquad\qquad 32x + 80y = 1280$$

2. Zack is spending his savings to pay off his car. He paid $500 as a down payment and is now paying $100 a month toward his debt. Make an equation to model this situation.

$$y = -100x + -500 \qquad\qquad x + .01y = 5$$

3. Lisa can't remember how much money was in her bank when she started saving $25 a month. She knows that she has been saving for 82 months and that her current balance is $3971.

$$y = 1921 + 25x \qquad\qquad y - 3971 = 25(x - 82)$$

4. Create an equation for each of the tables below.

a.

x	y
-1	32
0	24
1	16
2	8

b.

x	y
74	4
75	14
76	24
77	34

c.

x	y
-45	17
-42	23
-39	29
-36	35

5. Make an equation for the given points, intercepts and/or slopes.

a. $m = 7$, y-intercept (0, -5)

b. $m = -9$, passes through the point (51, 8)

c. x-intercept (3, 0), y-intercept (0, -6)

d. $m = 11$, passes through the point (-43, 19)

6. Make a graph for each of the given equations.

a. $y = -3x + 7$

b. $y - 8 = -7 (x - 2)$

c. $y = 3 (x - 1) + 2$

d. $4x + 6y = 24$

7. Make a table of values for each of the given equations.

a. $y = 7x + 1$

b. $3x - 6y = 24$

c. $y = 5(x - 9) + 21$

d. $y - 76 = -7 (x - 25)$