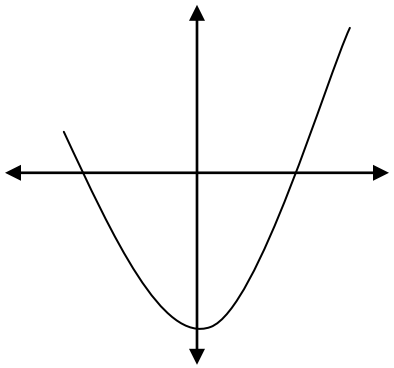
ALGEBRA II REVIEW PROBLEMS
(Chapter 2)

1. Determine if each relation is a function:

a. {(5, 0), (8, 1), (1, 3), (5, 2), (3, 8)}

b.



2. Given $f(x) = \frac{3}{8}x - 3$, find $f(3)$

3. Write a linear equation for the following conditions:

a. Through (2, 3) and (3, 5)

b. Perpendicular to $x + 2y = 6$ and containing (8, 3)

4. Graph $4x - 2y = 3$

5. Use the data below to do/answer the following using a graphing calculator:

Cable TV Subscribers				
Year	1980	1985	1990	1995
Subscribers (millions)	17.7	39.9	54.9	63.0

a. Draw a scatter plot.

b. State the correlation.

c. Write the equation of the best fit line.

d. Estimate the number of cable TV subscribers in 2005.

6. Graph the following equations/inequalities:

a. $y = |x - 7|$

b. $y = -|x + 10|$

c. $y = |x - 3| + 3$

d. $3x - y < -1$

e. $y \geq 2\left|x + \frac{1}{2}\right|$

f. $y \leq -|x - 5|$

ANSWERS

1a. No **b.** Yes

2. $-\frac{15}{8}$

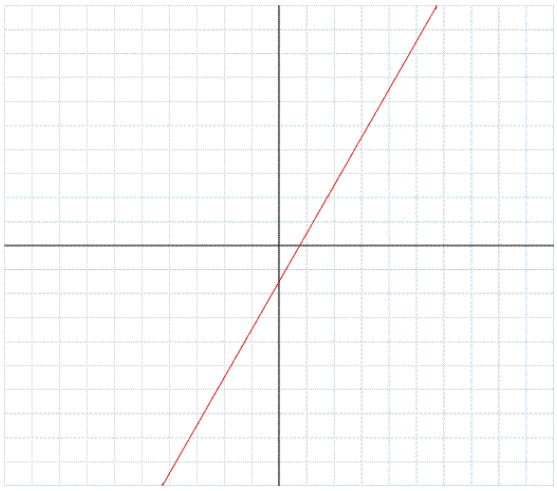
3a. **Any of the following:**

$y-3=2(x-2)$
$y-5=2(x-3)$
$y=2x-1$
$2x-y=1$

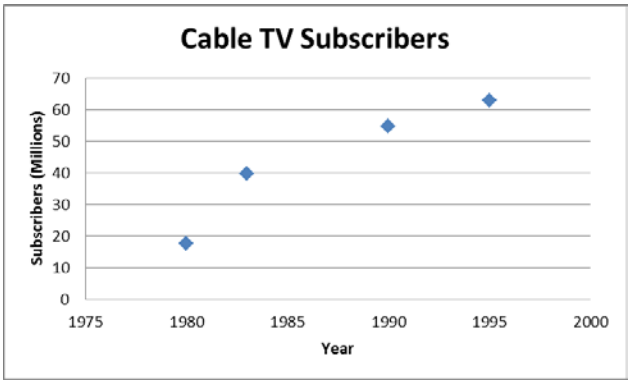
3b. **Any of the following:**

$y-3=2(x-8)$
$y=2x-13$
$2x-y=13$

4.



5a.

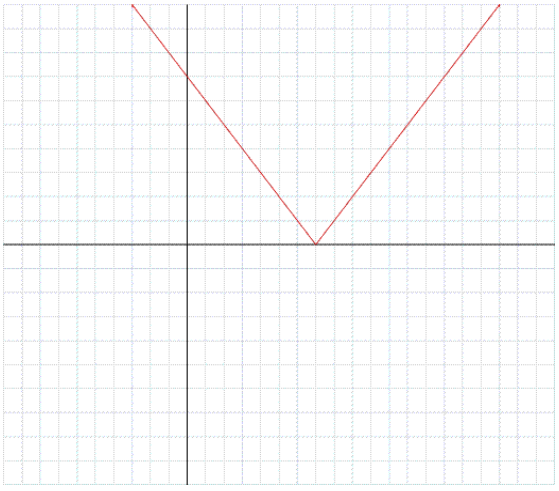


b. r = .978

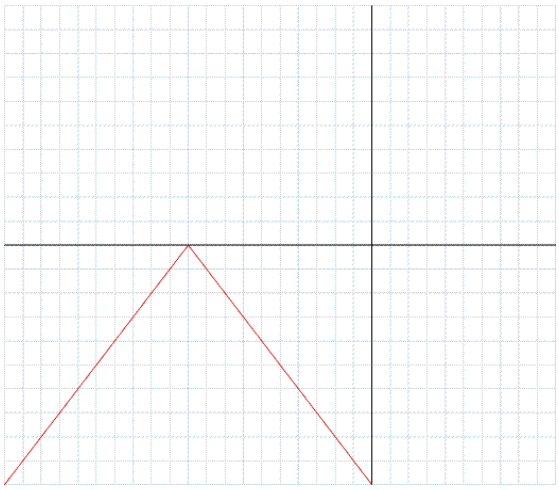
c. Subscribers = 3.018(Year) – 5954.4

d. 96.69 million

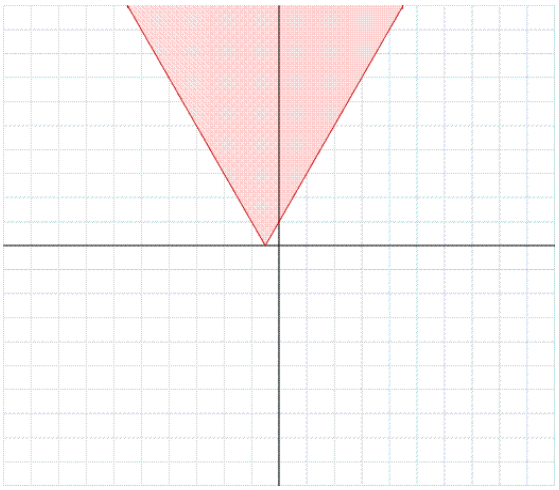
6a.



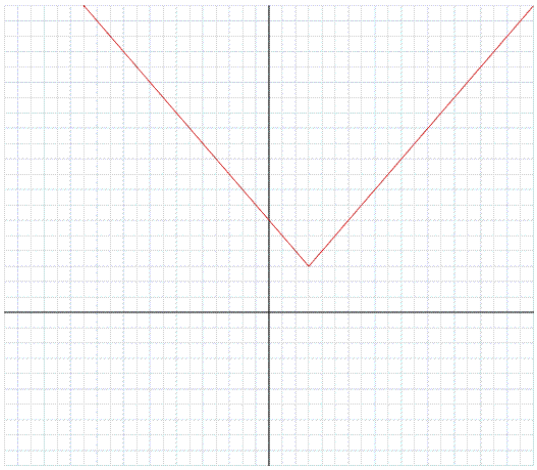
6b.



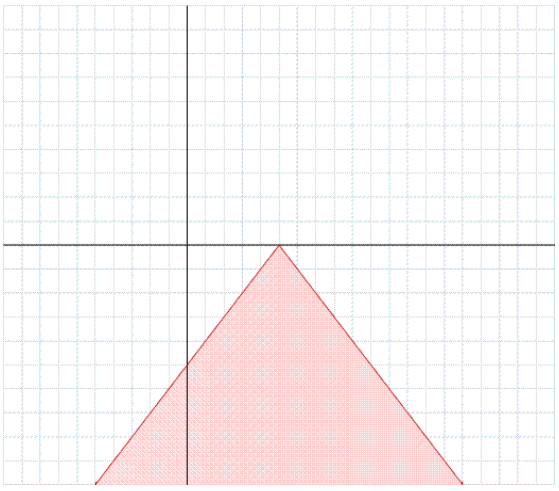
6e.



6c.



6f.



6d.