

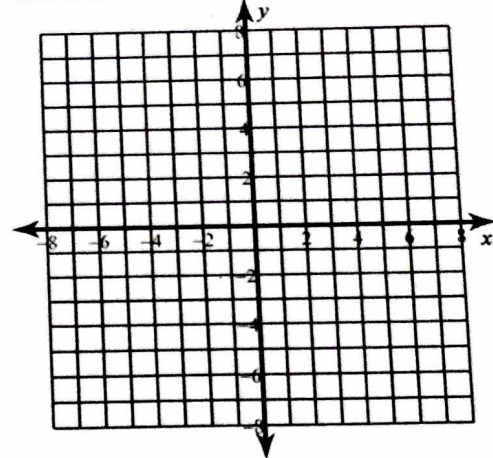
11.7 Practice

Solve the following systems:

1) $f(x) = |3x + 2| - 3$

$g(x) = -2x - 3$

- 2) Use your calculator and sketch a graph of the system in number 1 to confirm your answers:

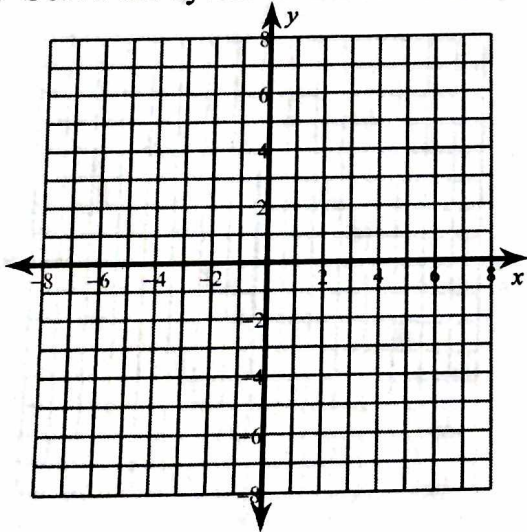


Use the following functions for #2 and #3

$a(x) = x^2 - 3$

$b(x) = -(x + 3)^2 + 2$

- 3) Solve the system GRAPHICALLY:



- 4) Solve the system algebraically:- be careful with the negative in
- $b(x)$
- !

Solve the systems algebraically:

5) $f(x) = x^2 - 2x - 2$
 $g(x) = 2x + 10$

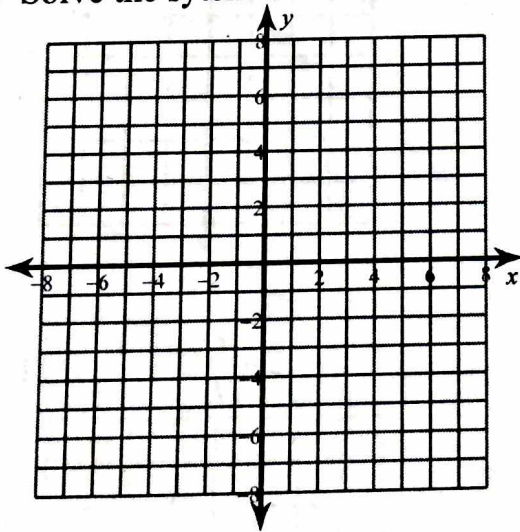
6) $a(x) = -4x^2 - 4x + 2$
 $b(x) = x^2 - 4x - 3$

Use the functions below for #7 and #8:

$p(x) = (x - 1)^2 - 1$

$q(x) = |x - 4| - 2$

7) Solve the system GRAPHICALLY:

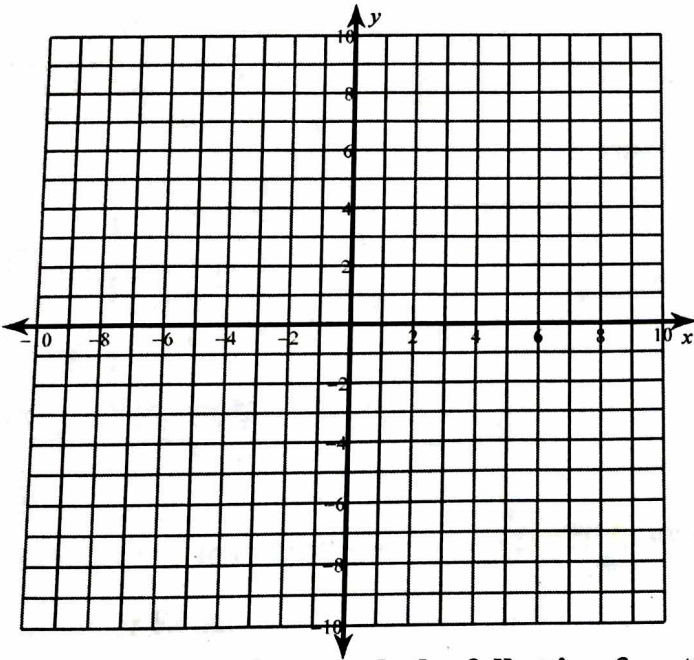


8) Solve the following system of equations graphically. Be sure to label your functions and clearly state your answer.

$$a(x) = (x + 2)^2 - 3$$

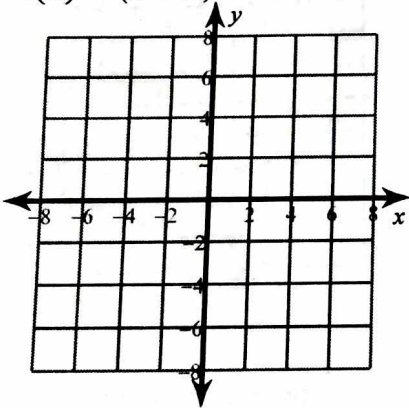
$$b(x) = -|x + 1| + 4$$

$$c(x) = \sqrt{x + 5}$$

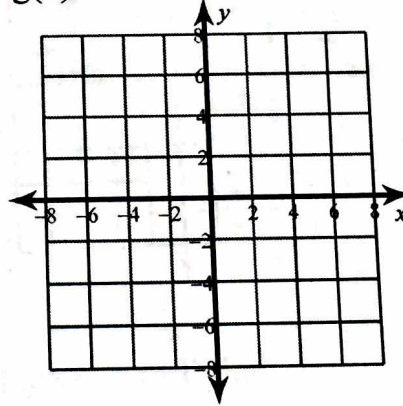


Use the shift method to graph the following functions. First graph the basic function in pencil at the origin, then graph the shifted function with a colored pencil.

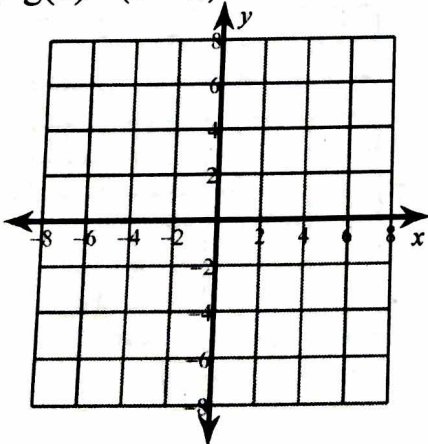
9) $f(x) = (x + 2)^2 - 3$



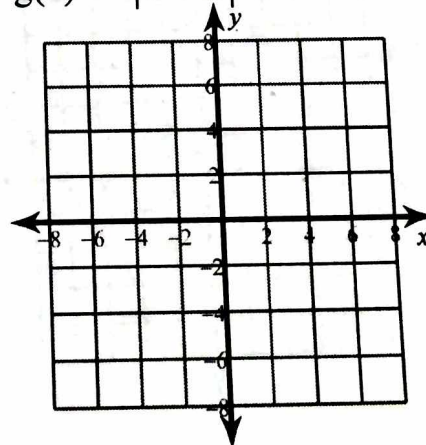
10) $g(x) = \sqrt{x + 5} - 7$



11) $g(x) = (x - 2)^3 + 2$

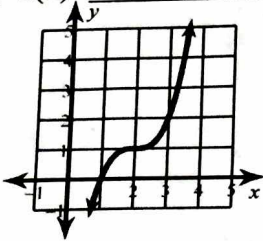


12) $g(x) = -|x + 2| + 4$

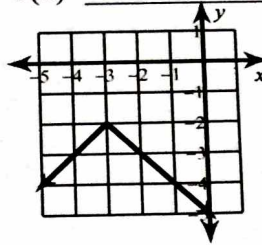


Use the shift method to write the equation of each of the functions in the graph:

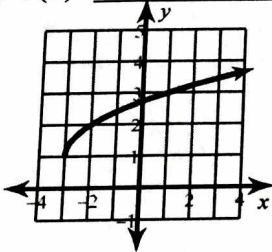
13) $a(x) =$ _____



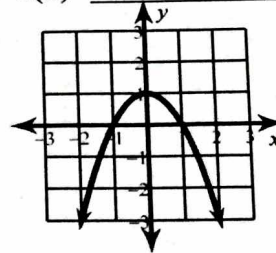
14) $b(x) =$ _____



15) $c(x) =$ _____



16) $d(x) =$ _____

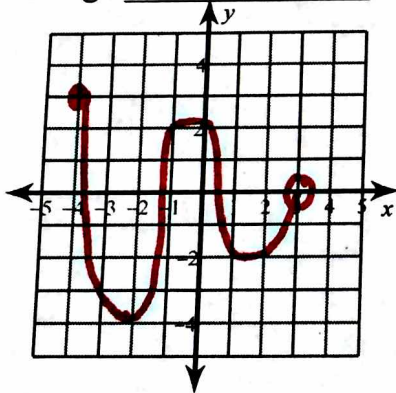


Look at the graph to determine if it is a function or a relation and state the domain and range.

17) Function or Relation

Domain: _____

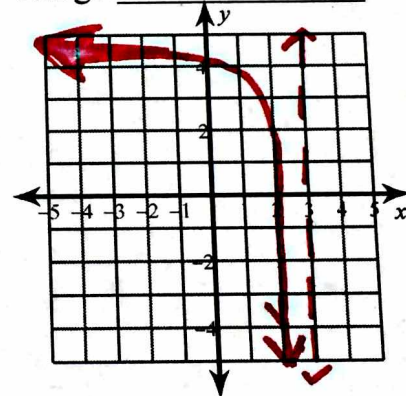
Range: _____



18) Function or Relation

Domain: _____

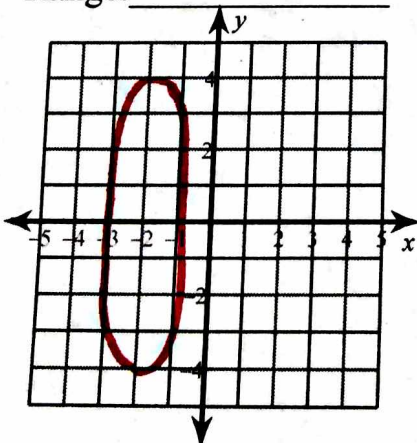
Range: _____



19) Function or Relation

Domain: _____

Range: _____



20) Function or Relation

Domain: _____

Range: _____

