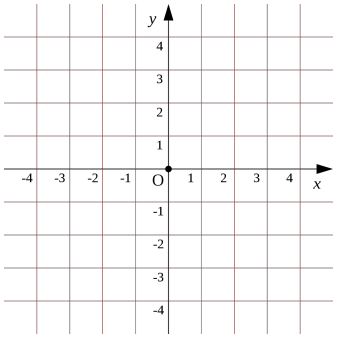
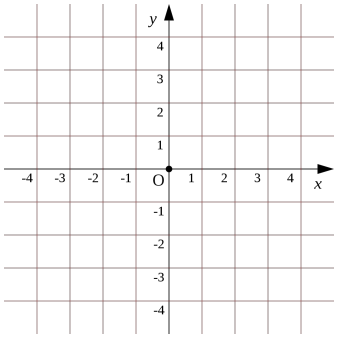
CH 2 Review for final Name:_____

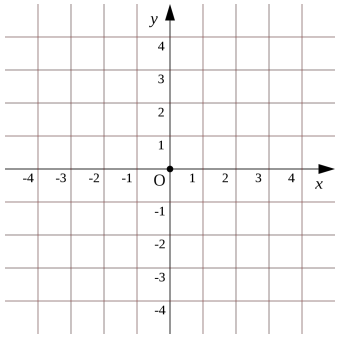
SHOW ALL WORK AND CIRCLE ANSWERS

Graph the following functions. Clearly label important points.

1. f(x) = -1/3x + 2
2. $f(x) = 3|x + 2| - 4$
3. f(x) = -2(x - 3)^2 + 1







Describe the transformation from the parent function. Use as much vocabulary as possible.

4. $f(x) = -\frac{1}{2}(x - 5)^2 - 8$

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5. $f(x) = 5|x + 2| + 7$

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Write a function *g* whose graph represents the indicated transformation of the graph of *f*.

6. f(x) = 3x^2 + 2
translation 2 units left and 3 units up

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7. $f(x) = |x|$
reflection in the x axis followed by a vertical stretch by a factor of 4

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Solve the system

8. x - 2y + 3z = 9
-x + 3y + z = -2
2x - 5y +5z = 17

Write an equation of a quadratic with the following characteristics.

9. vertex:(-3, -2) passes through (1, -10)
10. x-intercepts: -7, -3 & passes through (-1, 12)

Solve by completing the square. Describe the steps you use to do this

11. $x^2 + 8x - 1 = 0$

Solve. Show all steps

12. $2(x-3)^2 = 50$

13. $x^2 - 5x + 6 = 0$

Use differences to determine whether the data is linear or quadratic.

14.

Time, t	0	1	2	3	4
Height, h	400	384	336	256	14

15.

Time, t	5	6	7	8	9
Distance, d	46	55	64	73	82