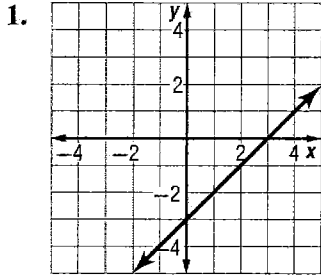


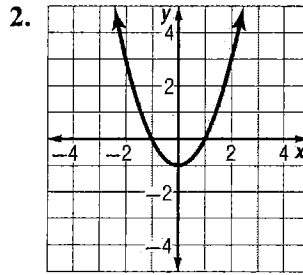
2-7 Skills Practice

Parent Functions and Transformation

Identify the type of function represented by each graph.



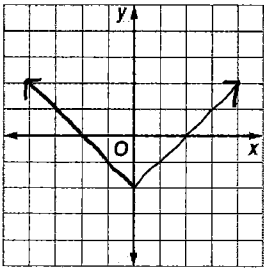
Linear



Quadratic

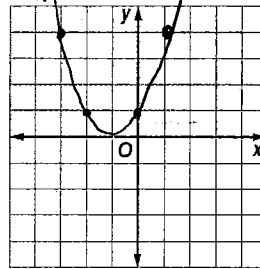
Describe the translation in each equation. Then graph the function.

3. $y = |x| - 2$



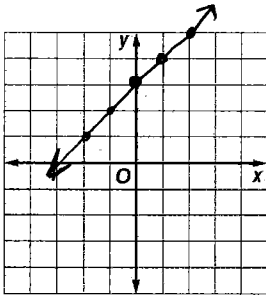
Description:
The function
is moved down
2 units.

4. $y = (x + 1)^2$



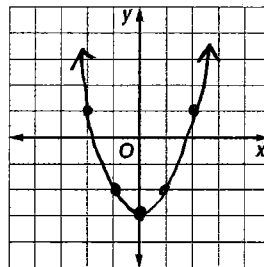
Description:
The function moves
left one unit.

5. $y = x + 3$



Description:
Moves up 3 units.

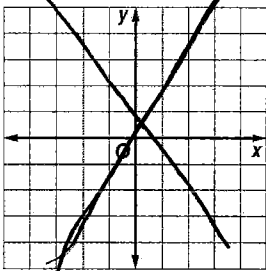
6. $y = x^2 - 3$



Description:
Moves down 3 units.

Describe the dilation in each function. Then graph the function.

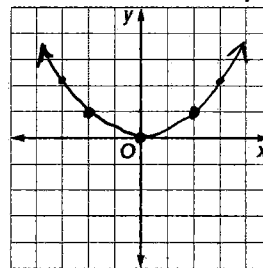
7. $y = |2x|$



OOPS.
Description:

8. $4y = x^2$

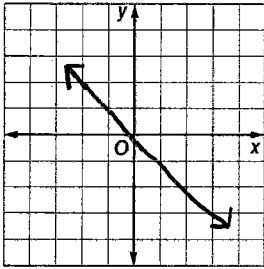
$$y = \frac{x^2}{4} = \frac{1}{4}x^2$$



Description:
The graph gets wider

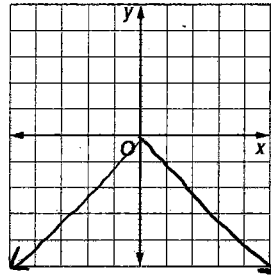
Describe the reflection in each equation. Then graph the function.

9. $y = -x$



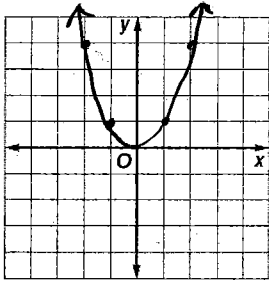
Description:
Reflect over
x axis

10. $y = -|x|$



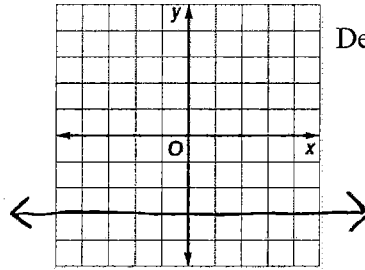
Description:
Reflect over x-axis

11. $y = (-x)^2$



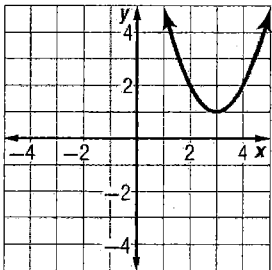
Description:
No change
as x gets squared
and y is still
positive.

12. $y = -3$



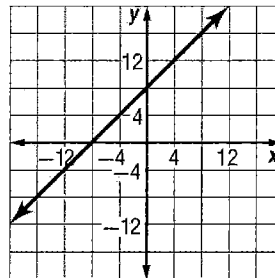
Description:
Reflection over
the x-axis.

13. **Biology** A biologist plotted the data from his latest experiment and found that the graph of his data looked like this graph. What type of function relates the variables in the experiment?



Quadratic

14. **CHEMISTRY** A scientist tested how fast a chemical reaction occurred at different temperatures. The data made this graph. What type of function shows the relation of temperature and speed of the chemical reaction?



Linear