

Graphing Equations: Transformations

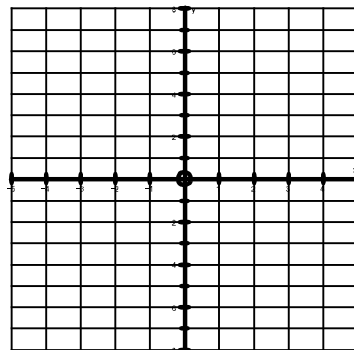
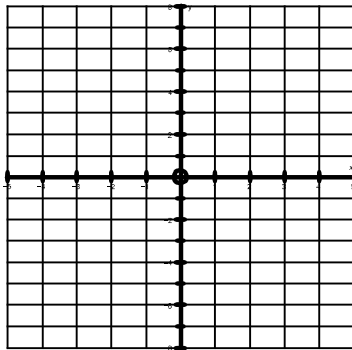
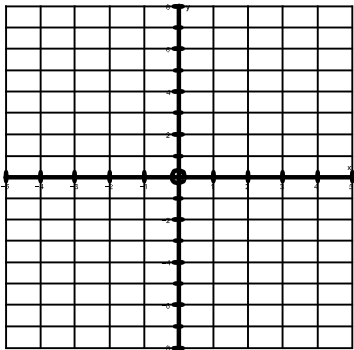
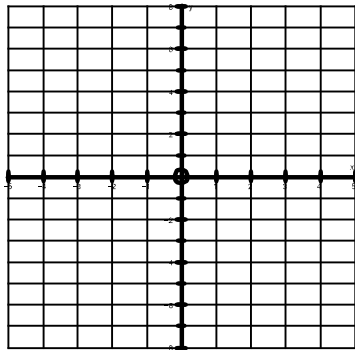
Graph the following equations with their parent graphs. Describe the transformation beneath each graph.

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

2) $y = |x - 3|$

3) $y = \sqrt{x + 4}$

4) $y = (-x - 1)^2$



H:
R:
V:
W/N:

H:
R:
V:
W/N:

H:
R:
V:
W/N:

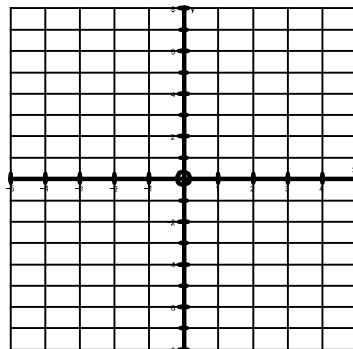
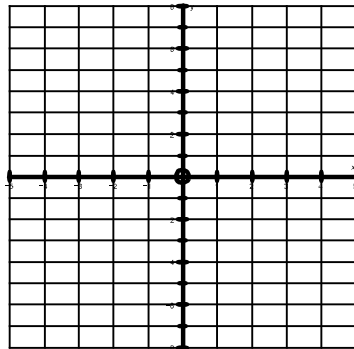
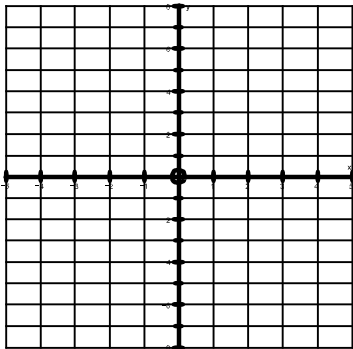
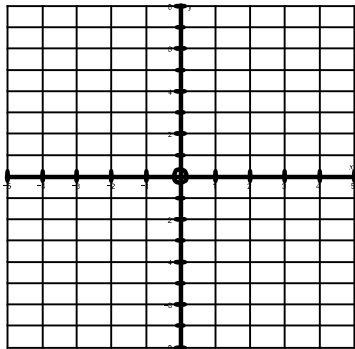
H:
R:
V:
W/N:

5) $y = |-x + 2|$

6) $y = \sqrt{-x - 2}$

7) $y = -x^2$

8) $y = -|x + 3|$



H:
R:
V:
W/N:

H:
R:
V:
W/N:

H:
R:
V:
W/N:

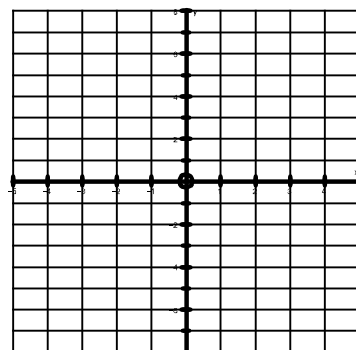
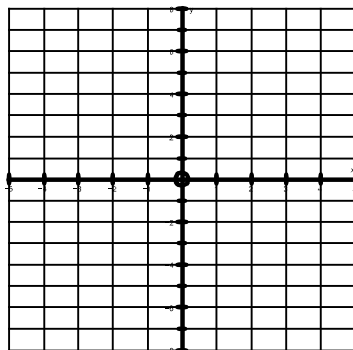
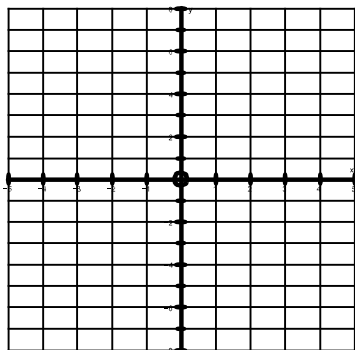
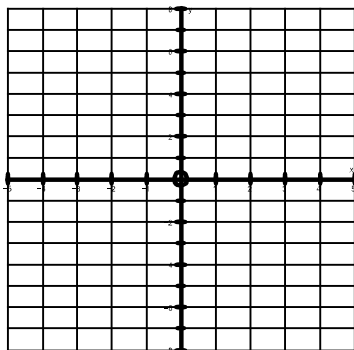
H:
R:
V:
W/N:

9) $y = -\sqrt{x + 1}$

10) $y = |x| + 2$

11) $y = -\sqrt{x} - 2$

12) $y = (x - 2)^2 - 3$



H:
R:
V:
W/N:

H:
R:
V:
W/N:

H:
R:
V:
W/N:

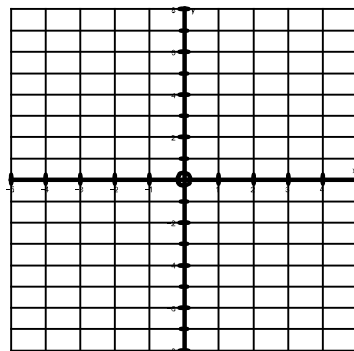
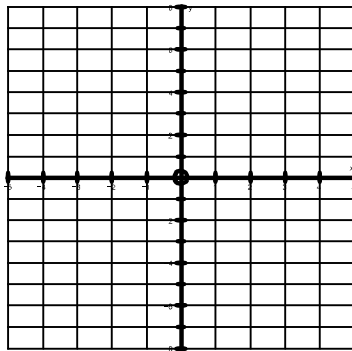
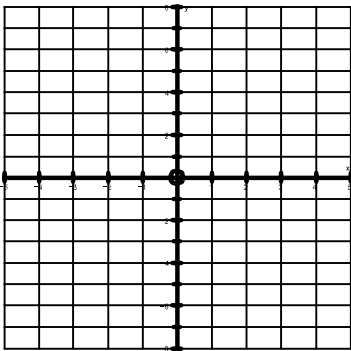
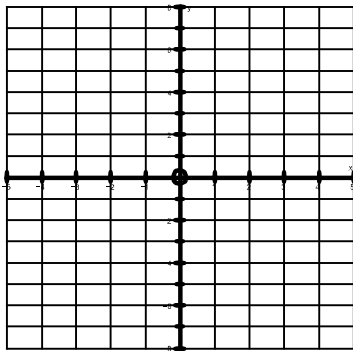
H:
R:
V:
W/N:

13) $y = 2|x|$

14) $y = \frac{1}{2}x^2$

15) $y = 3\sqrt{x}$

16) $y = 2x^2 - 3$



H:
R:
V:
W/N:

H:
R:
V:
W/N:

H:
R:
V:
W/N:

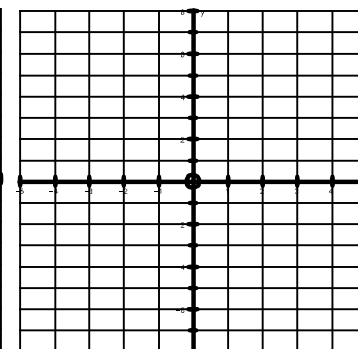
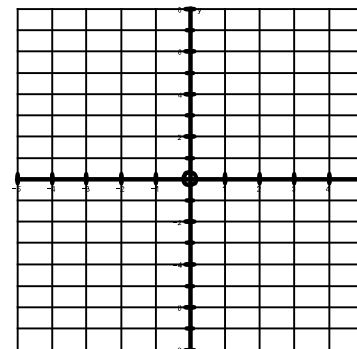
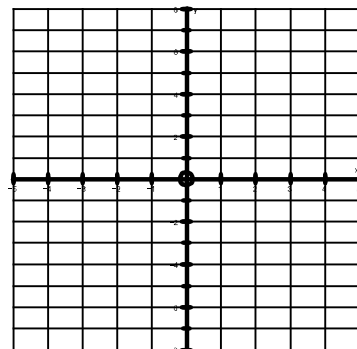
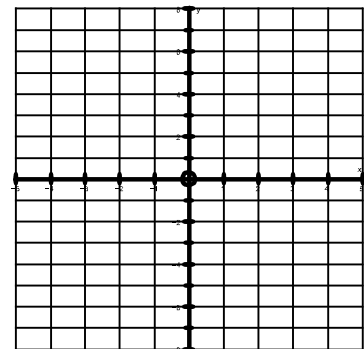
H:
R:
V:
W/N:

17) $y = 2^x - 1$

18) $y = 2^{-x}$

19) $y = -3^x$

20) $y = 2^{(x+3)}$



H:
R:
V:
W/N:

H:
R:
V:
W/N:

H:
R:
V:
W/N:

H:
R:
V:
W/N:

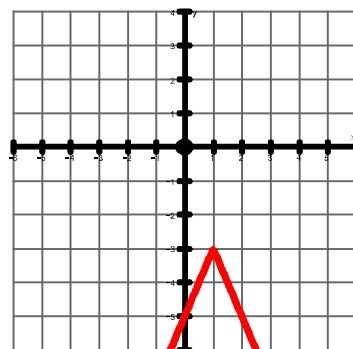
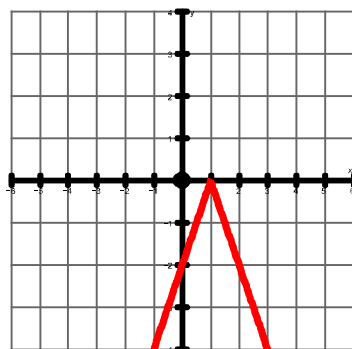
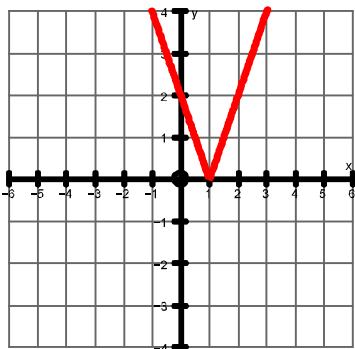
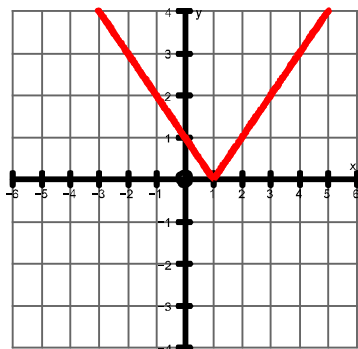
Given the graph of an equation, identify the parent equation, describe the transformations, and write the equation.

21)

22)

23)

24)



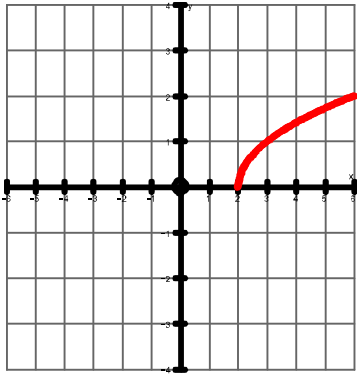
H:
R:
V:
W/N:

H:
R:
V:
W/N:

H:
R:
V:
W/N:

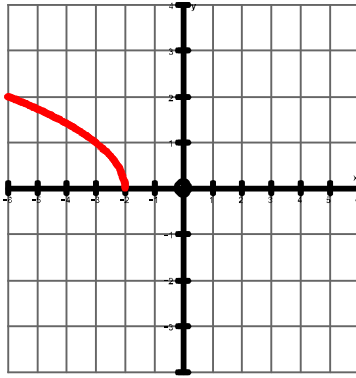
H:
R:
V:
W/N:

25)



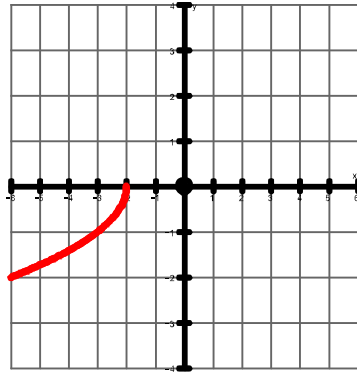
H:
R:
V:
W/N:

26)



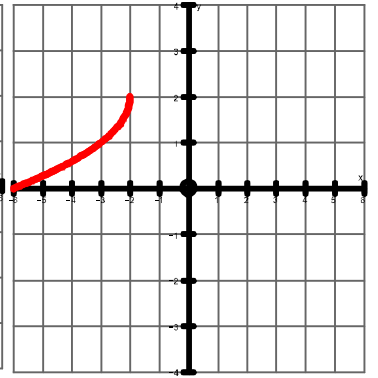
H:
R:
V:
W/N:

27)



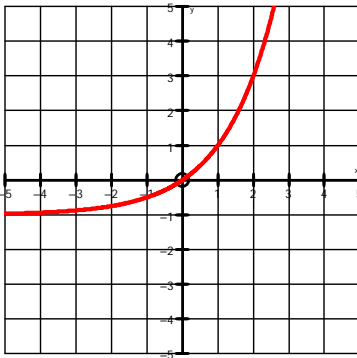
H:
R:
V:
W/N:

28)



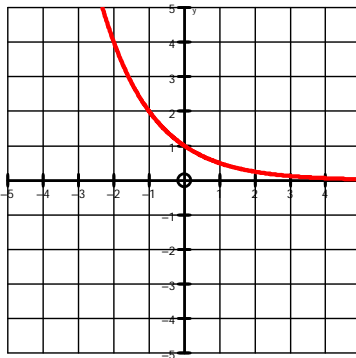
H:
R:
V:
W/N:

29)



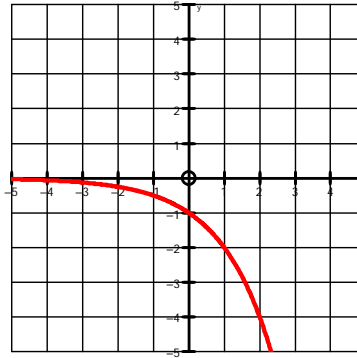
H:
R:
V:
W/N:

30)



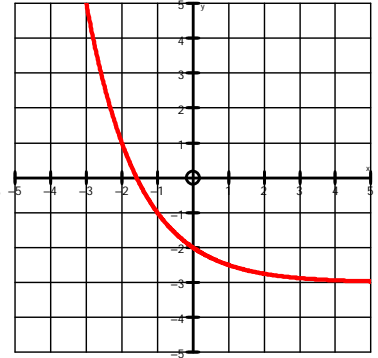
H:
R:
V:
W/N:

31)



H:
R:
V:
W/N:

32)



H:
R:
V:
W/N: