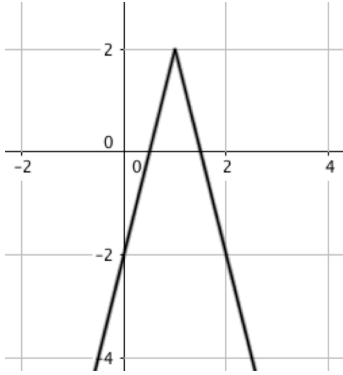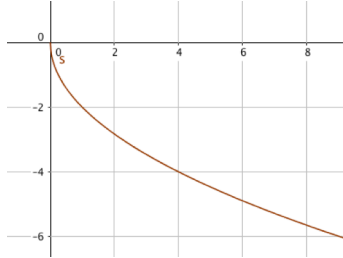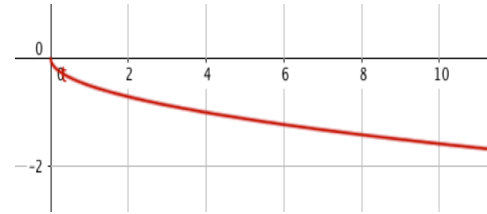# TRANSFORMATONS & GRAPHS

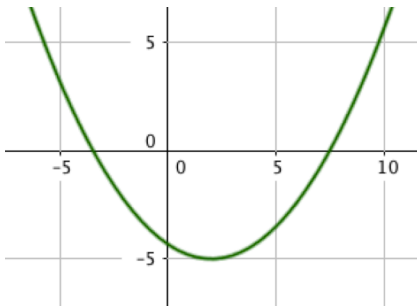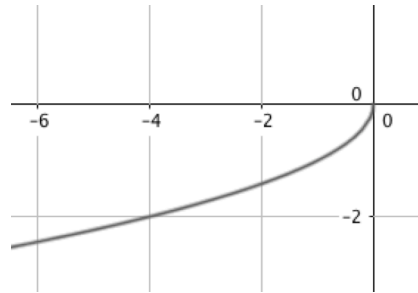*Match the graph to the equation by writing the letter of the equation under the graph.*

1. _____

5. _____

8. _____
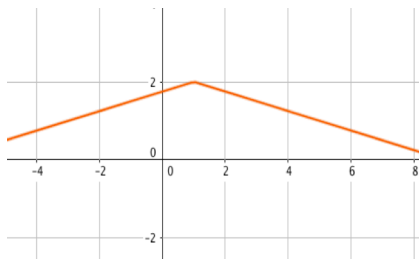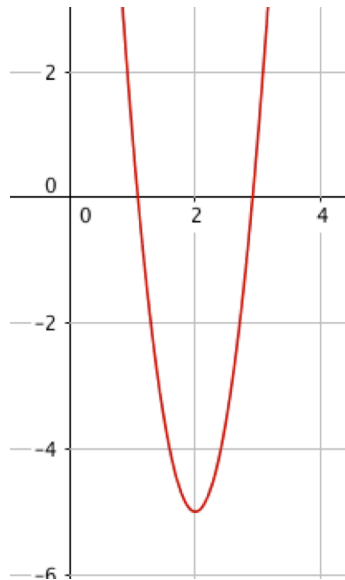
2. _____

6. _____
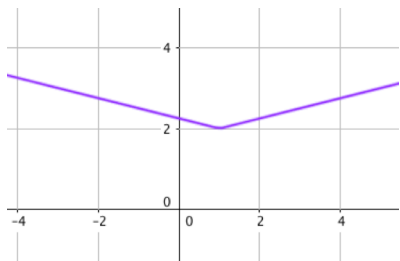
a. $g(x)= \frac{1}{6}(x - 2)^2 -5$

b. $h(x) = -\frac{1}{4}|x - 1| + 2$

c. $j(x) = -\sqrt{-x}$

d. $k(x) = -4|x - 1|+ 2$

e. $m(x) = 6(x - 2)^2 - 5$

f. $n(x) = -2\sqrt{x}$

g. $p(x) = -\frac{1}{2}\sqrt{x}$

h. $q(x) = \frac{1}{4}|x-1| + 2$
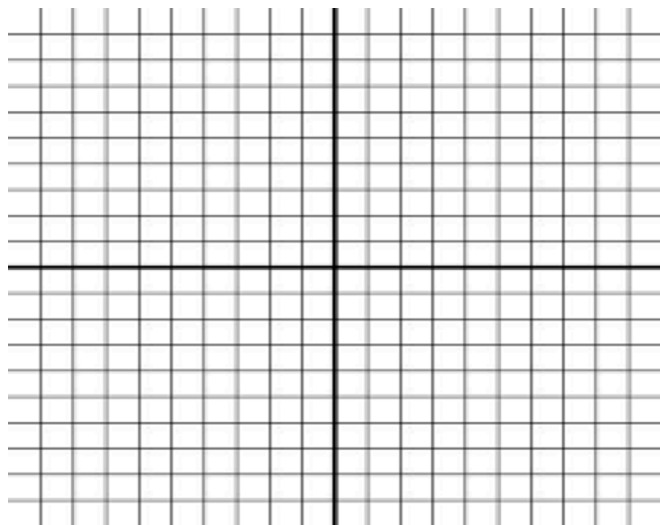
3. _____

7. _____

4. _____

For each function, state the parent function and describe the transformations. Then graph each parent function and the transformed function on the same graph
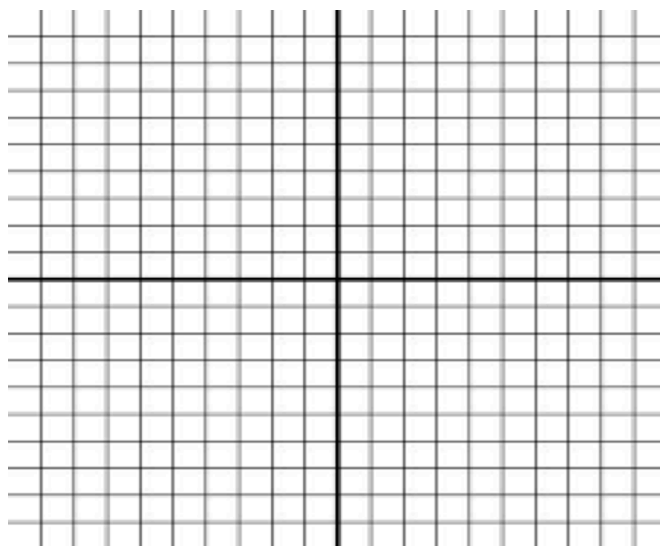
1. $g(x) = -3\sqrt[3]{x} - 2$ Parent function is *f(x)=* _____
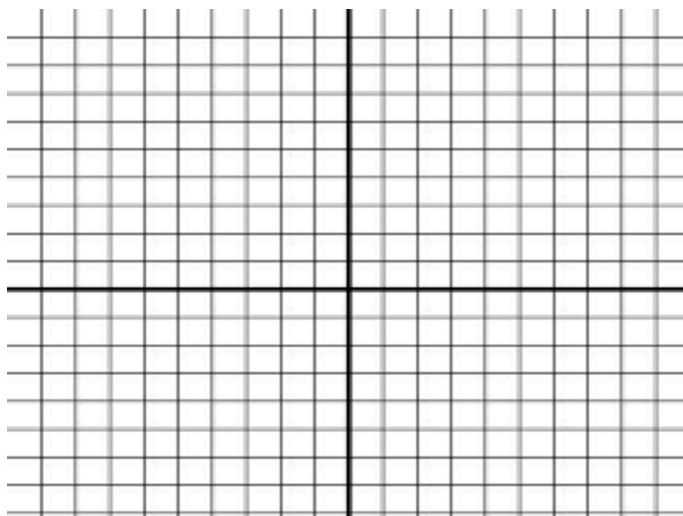
    Transformations_____

2. $h(x) = \frac{1}{2}(x + 2)^2 - 4$ Parent function is *f(x)=* _____

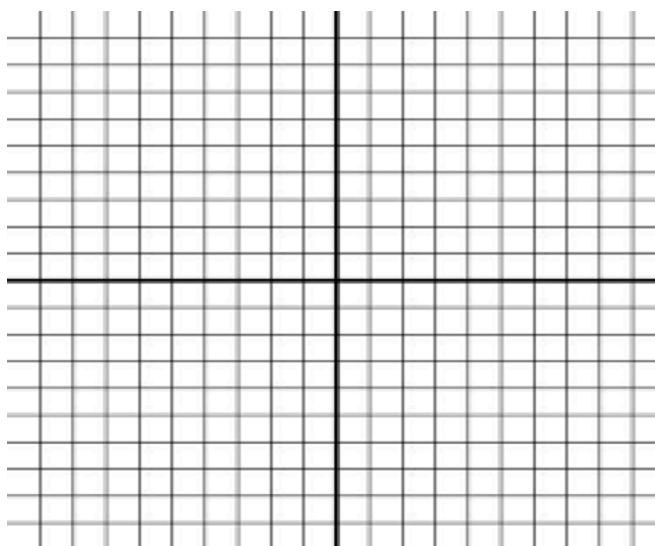   Transformations_____

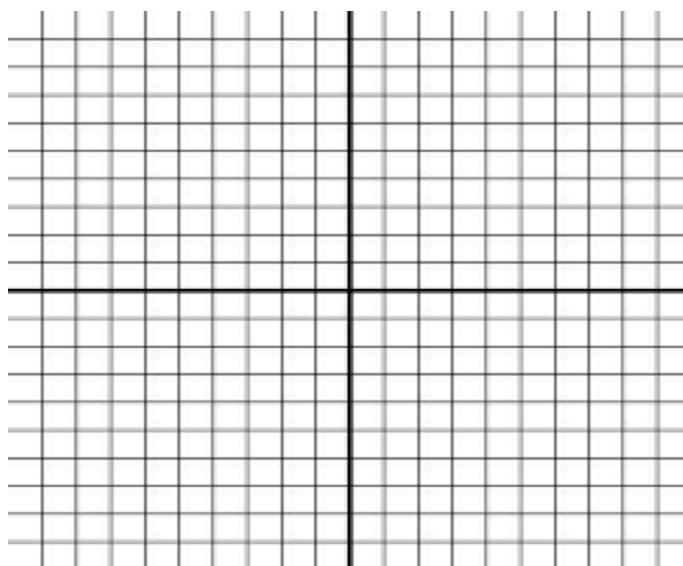3. $j(x) = -4|x| + 2$ Parent function is $f(x)=$ _____

    Transformations_____

4. $k(x) = -2\sqrt{-x} - 2$ Parent function is $f(x)=$ _____

    Transformations_____

5. $p(x) = \frac{1}{2}(x - 4)^3$ Parent function is *f(x)=* _____

Transformations_____

6. $q(x) = -4\sqrt{x + 2} + 1$ Parent function is *f(x)=* _____

Transformations_____