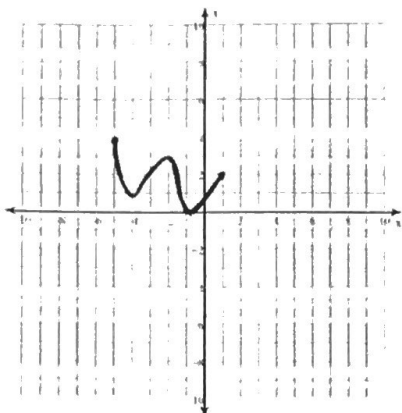**Transformation Practice 2**　　　　　　　　NAME: _____

Answer all questions below to the best of your ability. If you are stuck or have doubts about your answers, let Ms. Yawn or Mrs. R know!

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1. The graph below is for $f(x)$.
   Sketch $f(x-4)$.

4. The graph below is for $f(x)$.
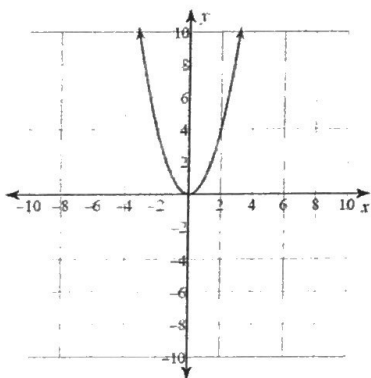   Sketch $f(x+3)+4$.

2. The graph below is transformed from the parent function $f(x) = x^2$. Write the new formula for the transformation. We will call this new function $g(x)$.
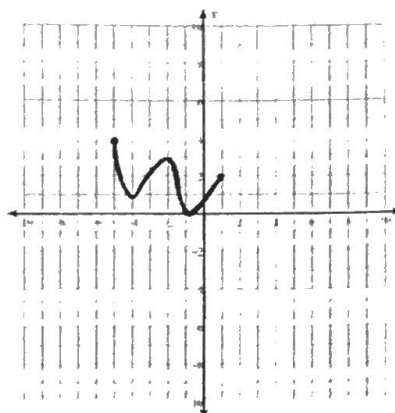
   $g(x) =$ _____
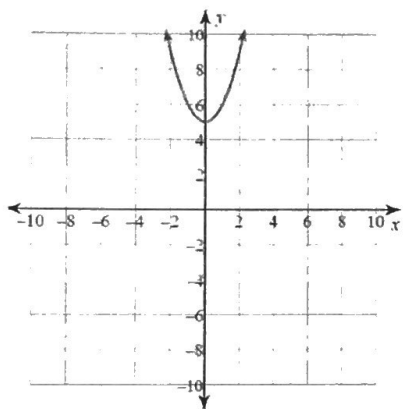
5. The graph below is transformed from the parent function $f(x) = \sqrt{x}$. Write the new formula for the transformation. We will call this new function $g(x)$.

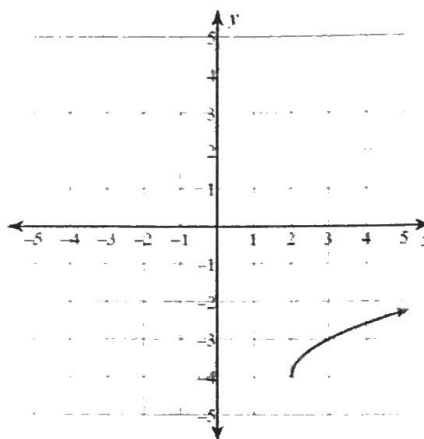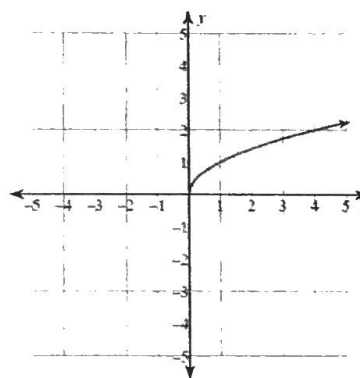 $g(x) =$ _____

3. Sketch on the graph below: $f(x) = x^2 - 2$

6. Sketch on the graph below: $f(x) = \sqrt{x+2} + 4$

more on back ⟶

(from pg 1)

For problems 1, 2, & 5, describe the following key characteristics.

a. State the parent function.
b. Graph the function.
c. State the domain and range of the function.
d. Identify the intervals on which the function is increasing and/or decreasing.
e. State the x and y intercepts.
f. Identify the maximum and minimum values (if they exist).
g. Identify the end behaviors of the function.

①   ②   ⑤