⭐ **Evaluate: Homework and Practice**
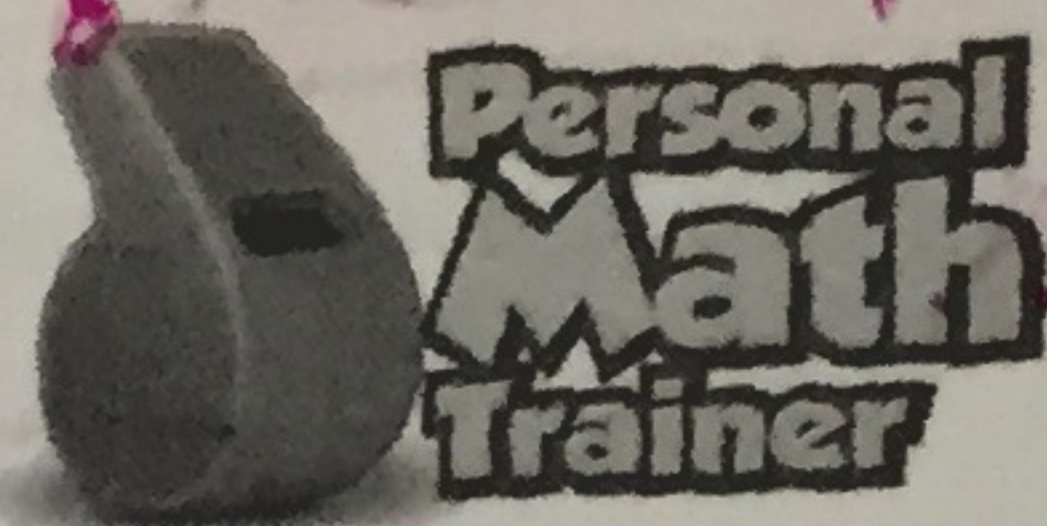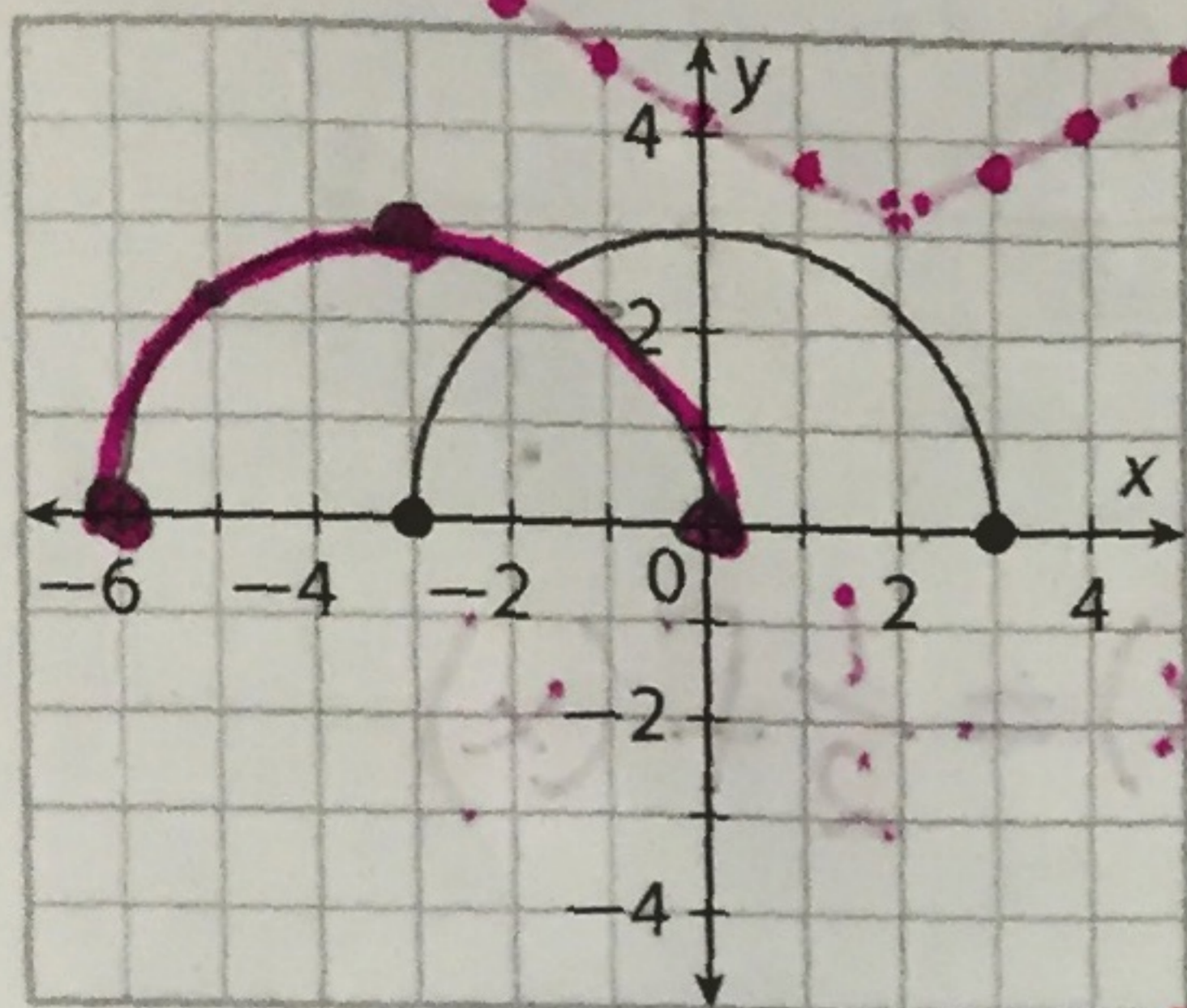
Personal
Math
Trainer

• Online Homework
• Hints and Help
• Extra Practice

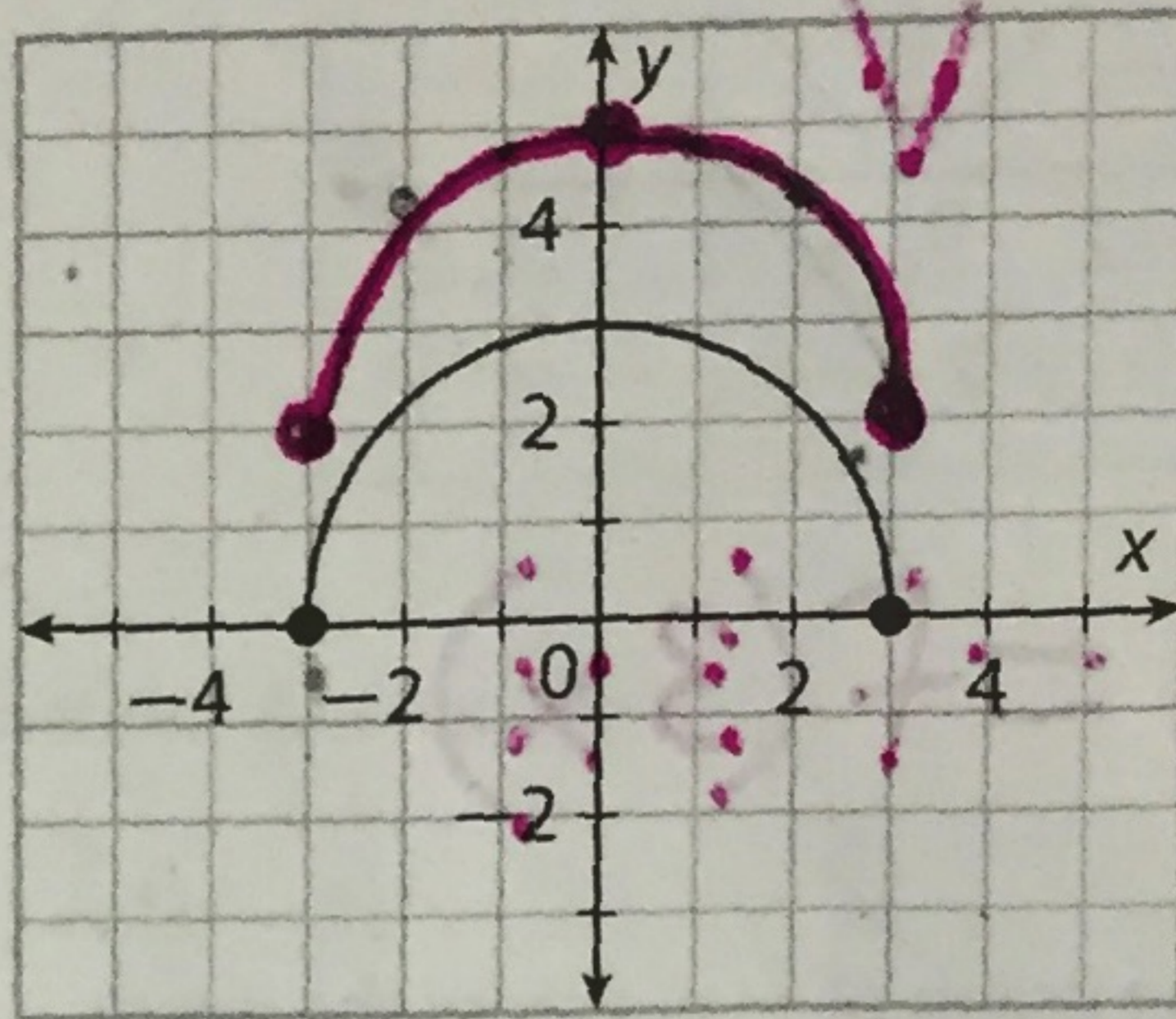Write $g(x)$ in terms of $f(x)$ after performing the given transformation of the graph of $f(x)$.

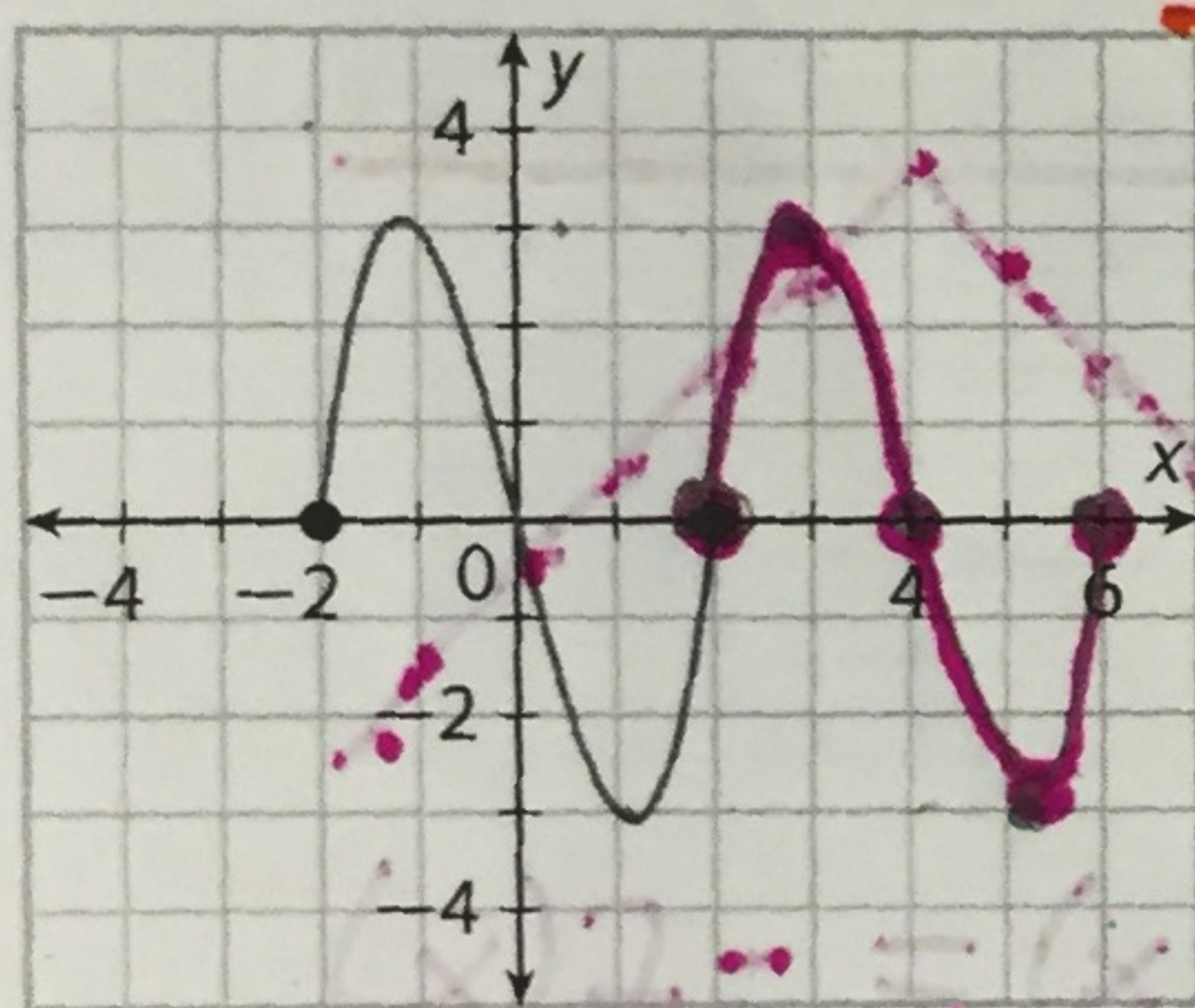**1.** Translate the graph of $f(x)$ to the left 3 units.

opposite

$$g(x) = f(x+3)$$

2. Translate the graph of $f(x)$ up 2 units.
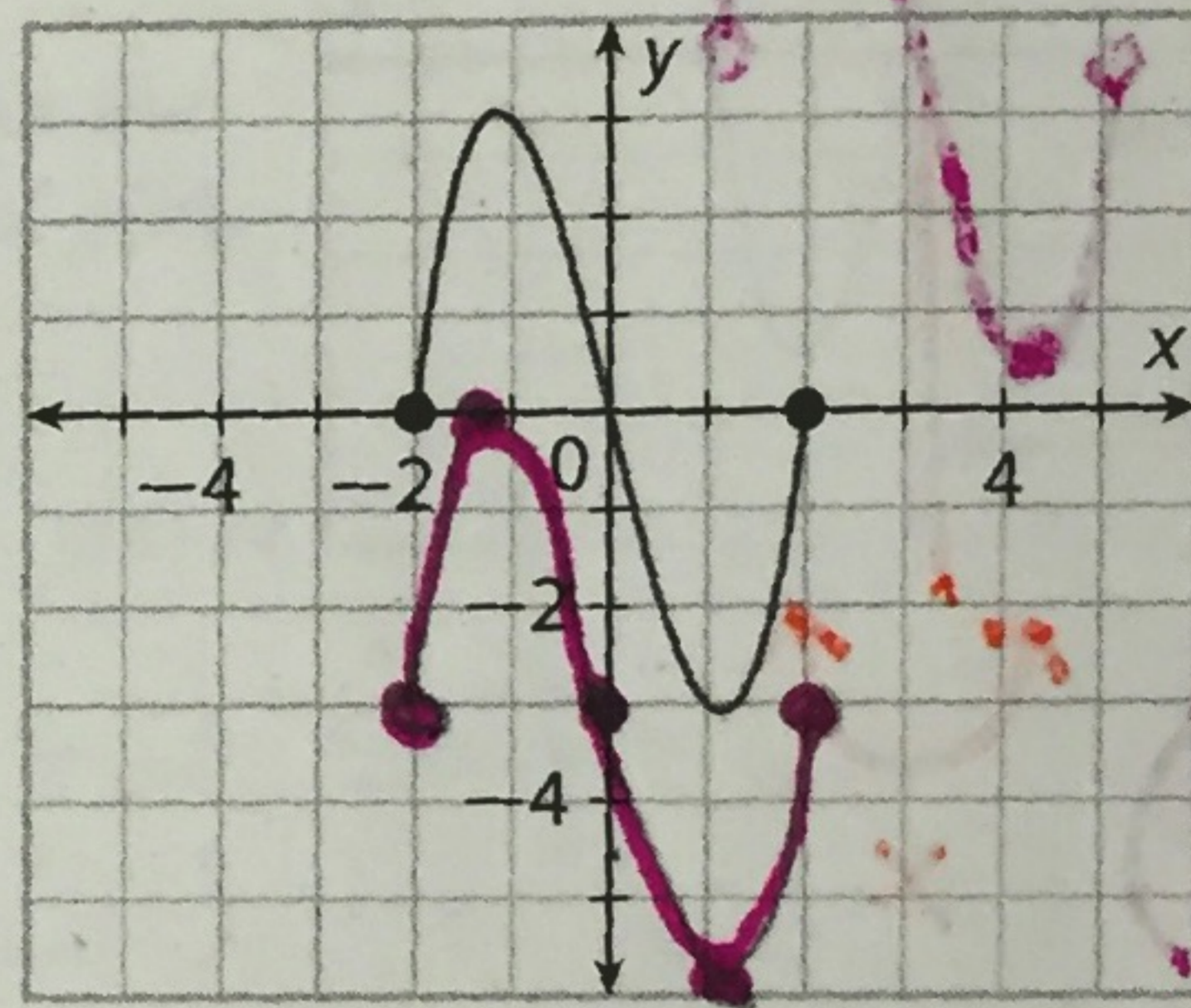
$$g(x) = f(x) + 2$$

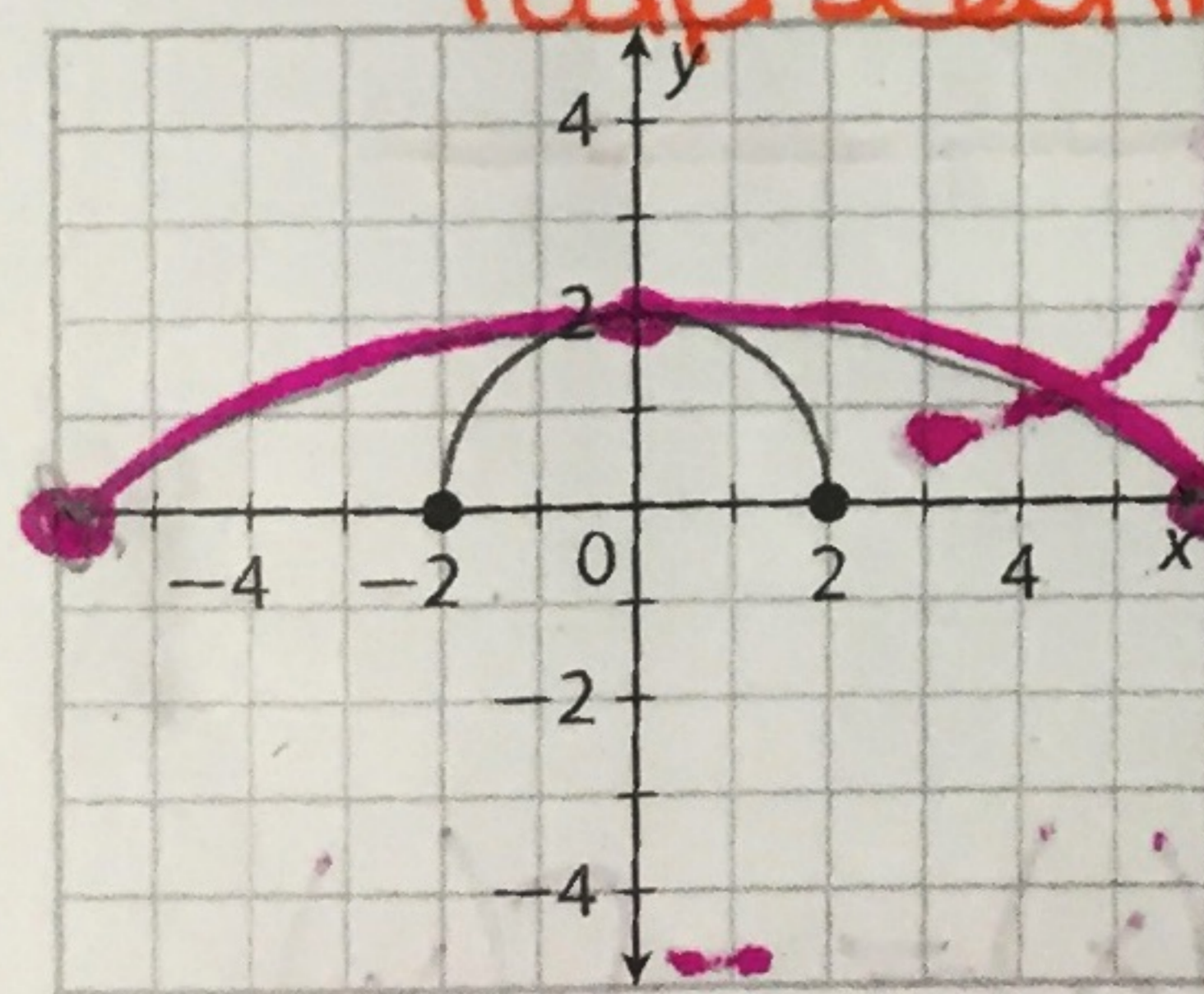**3.** Translate the graph of $f(x)$ to the right 4 units.

opposite

$$g(x) = f(x-4)$$

4. Translate the graph of $f(x)$ down 3 units.

$$g(x) = f(x) - 3$$

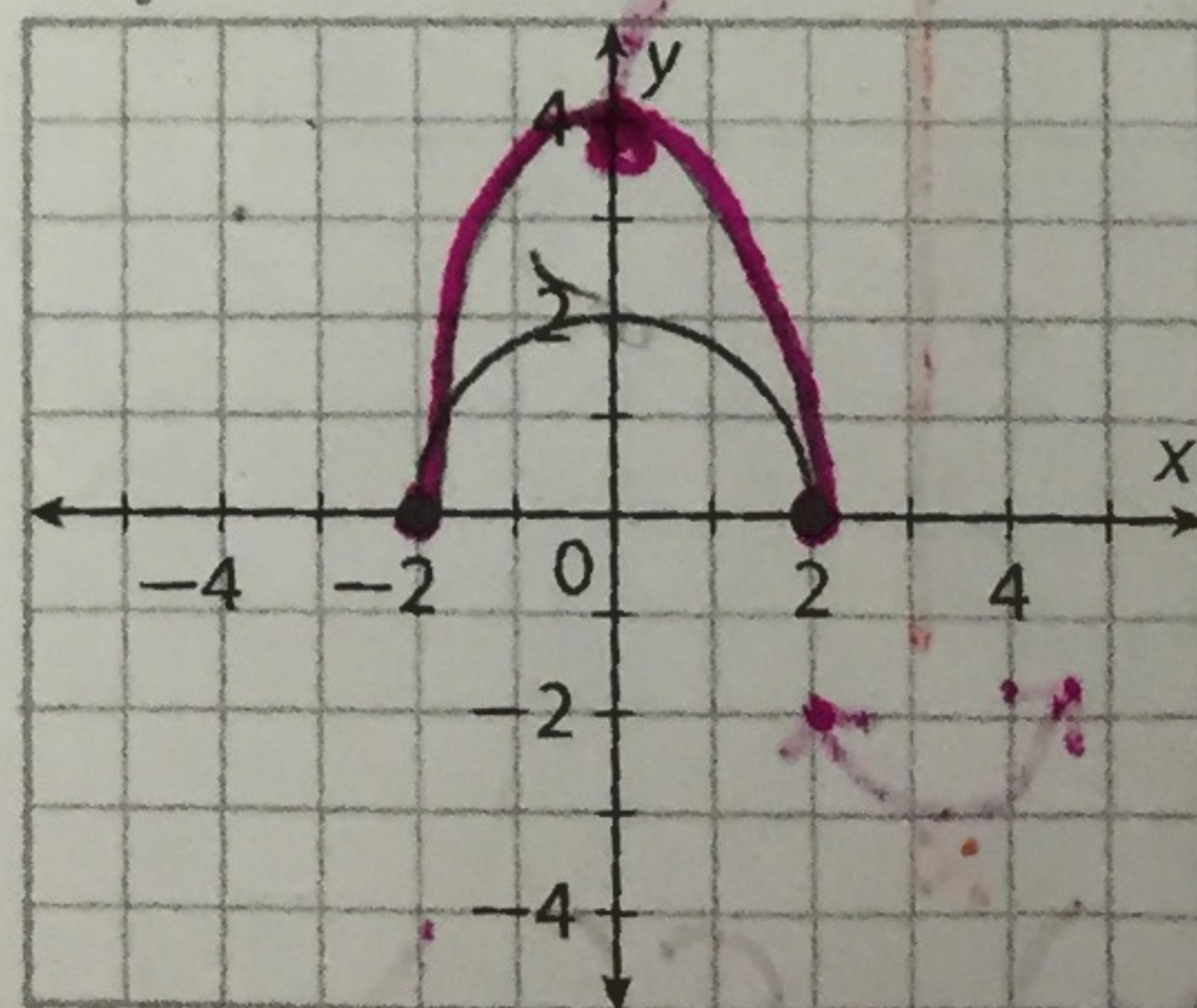**5.** Stretch the graph of $f(x)$ horizontally by a factor of 3.

reciprocal in equation
opposite

$$g(x) = f\left(\tfrac{1}{3}x\right)$$

6. Stretch the graph of $f(x)$ vertically by a factor of 2.

$$g(x) = 2f(x)$$