7) How can the graph of $f(x) = \frac{1}{x + 6} - 10$ be obtained from the graph of $y = \frac{1}{x}$?

A) Shift it horizontally 6 units to the left. Shift it 10 units up.
B) Shift it horizontally 6 units to the right. Stretch it vertically by a factor of 10.
C) Shrink it horizontally by a factor of $\frac{1}{2}$. Shift it 10 units down.
D) Shift it horizontally 6 units to the left. Shift it 10 units down.

Write an equation for a function whose graph fits the given description.

8) The graph of $f(x) = x^2$ is shifted 4 units to the left. This graph is then vertically stretched by a factor of 6 and reflected across the x-axis. Finally, the graph is shifted 8 units downward.

A) $y = -6(x + 4)^2 - 8$　B) $y = -6(x - 4)^2 + 8$　C) $y = -6(x - 4)^2 - 8$　D) $y = -6(x + 8)^2 - 4$

9) The graph of $f(x) = x^2$ is shifted 2 units to the left and 10 units downward.

A) $y = (x + 2)^2 - 10$　B) $y = (x + 10)^2 - 2$　C) $y = (x - 10)^2 + 2$　D) $y = (x - 2)^2 - 10$

10) The graph of $f(x) = x^2$ is vertically stretched by a factor of 2, and the resulting graph is reflected across the x-axis.

A) $f(x) = -2x^2$　B) $f(x) = (x - 2)^2$　C) $f(x) = 2(x - 2)x^2$　D) $f(x) = 2x^2$

11) The graph of $f(x) = x^4$ shifted right 8 units and up 4 units.

A) $y = -(x - 8)^4 + 4$　B) $y = (x + 8)^4 - 4$　C) $y = (x - 8)^4 + 4$　D) $y = -(x - 8)^4 + 32$

12) The graph of $f(x) = \sqrt{x}$ is shifted 2 units to the right.

A) $y = \sqrt{x} + 2$　B) $y = \sqrt{x - 2}$　C) $y = \sqrt{x} - 2$　D) $y = \sqrt{x + 2}$

13) The shape of $y = \sqrt{x}$ is shifted 8 units to the left. Then the graph is shifted 4 units upward.

A) $f(x) = \sqrt{x + 8} + 4$　B) $f(x) = \sqrt{x - 8} + 4$　C) $f(x) = 4\sqrt{x + 8}$　D) $f(x) = \sqrt{x + 4} + 8$