SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

Use the given conditions to write an equation for the line in the indicated form.

1) Passing through (4, 3) and parallel to the line whose equation is \( y = 2x - 6 \);
   point-slope form

2) Passing through (5, 4) and perpendicular to the line whose equation is \( y = 3x + 7 \);
   point-slope form

3) Passing through (5, 2) and perpendicular to the line whose equation is \(-6x + y - 9 = 0\);
   slope-intercept form

Find the average rate of change of the function from \( x_1 \) to \( x_2 \).

4) \( f(x) = -3x^2 - x \) from \( x_1 = 5 \) to \( x_2 = 6 \)

5) \( f(x) = 5x + 7 \) from \( x_1 = -1 \) to \( x_2 = 0 \)

Use the given conditions to write an equation for the line in the indicated form.

6) Passing through (3, 3) and parallel to the line whose equation is \( 4x + y - 5 = 0 \);
   slope-intercept form

Use the shape of the graph to name the function.

7) [Graph of a cubic function]
8) Begin by graphing the standard quadratic function \( f(x) = x^2 \). Then use transformations of this graph to graph the given function.

9) \( g(x) = x^2 + 2 \).

10) \( g(x) = \sqrt{x} - 2 \).
Begin by graphing the standard quadratic function \( f(x) = x^2 \). Then use transformations of this graph to graph the given function.

11) \( h(x) = (x - 2)^2 \)

12) \( h(x) = |x - 3| - 3 \)

13) \( h(x) = -(x - 2)^2 \)
Begin by graphing the standard square root function $f(x) = \sqrt{x}$. Then use transformations of this graph to graph the given function.

14) $g(x) = \sqrt{x - 1}$

15) $h(x) = \frac{1}{2}(x - 2)^2$

16) $h(x) = 2|x| + 4$
Begin by graphing the standard quadratic function \( f(x) = x^2 \). Then use transformations of this graph to graph the given function.

17) \( h(x) = (x + 4)^2 + 6 \)

18) \( g(x) = -\sqrt{x + 1} - 1 \)

19) \( h(x) = -\sqrt{-x + 1} - 2 \)
Begin by graphing the standard cubic function \( f(x) = x^3 \). Then use transformations of this graph to graph the given function.

20) \( h(x) = (x + 3)^3 + 3 \)

Use the graph of the function \( f \), plotted with a solid line, to sketch the graph of the given function \( g \).

21) \( g(x) = f(x - 1) - 2 \)