Name: _____

1. (SECTION 1.7): Solve $x^2 < 25$. Write your answer using interval notation.

2. (SECTION 2.1): Evaluate f(10) and f(2+a) when $f(x) = 2x - x^2$. Simplify your answer.

3. (SECTION 2.2): Sketch the graph of $g(x) = x^2 + 4x + 4$ by first making a table of values.

3. _____

4. _____

4. (SECTION 2.3): Use the given graph of y = f(x) to find (a) the domain of f, (b) the range of f, (c) the intervals on which f is increasing, and (d) the intervals on which f is decreasing.

5. (SECTION 2.4): Determine (a) the net change and (b) the average rate of change of $f(x) = 4 - 3x^2$ between x = 2 and x = 2 + h.

ID: _____

5. _____

2. _____

1._____

6. (SECTION 2.6) Sketch the graph of $y = (x - 2)^3 + 4$, not by plotting points, but by starting with the graph of a standard function and applying transformations.

- 7. (SECTION 1.7): Solve $2x + 1 \ge 25$. Write your answer using interval notation.
- 8. (SECTION 2.1): Evaluate g(-6) and $g(a^2+6)$ when $g(t) = \frac{t+6}{t-6}$. Simplify your answer.
- 9. (SECTION 2.2): Sketch the graph of g(x) = -4x + 4 by first making a table of values.
- 10. (SECTION 2.4): Determine (a) the net change and (b) the average rate of change of $f(x) = \frac{8}{x+1}$ between x = 0 and x = h.

10. _____

7. _____

8. _____

11. (SECTION 2.6) Sketch the graph of y = -|x-6|, not by plotting points, but by starting with the graph of a standard function and applying transformations.