Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period \_\_\_\_\_\_\_\_\_\_\_

Graph the following function using a table. Determine the vertex of each function.

1) $y=\left|x+6\right|$ (2) $y=\left|x-4\right|$ (3) $y=-\left|x\right|+3$

4) $y=\left|x\right|-2$ (5) $y=-\left|x+3\right|+7$ (6) $y=\left|x-1\right|-6$

7) $y=2\left|x\right|$ (8) $y=-3\left|x\right|$

Use problems 1-8 to fill in the blanks.

9) If there is a negative sign in front of the absolute value, the graph is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(when compared to the parent graph)

10) The domain of an absolute value function is always \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

11) For $y=a\left|x\right|$, if a > 1, then the graph will be \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ than the parent graph.

12) For $y=a\left|x\right|$, if 0 < a < 1, then the graph will be \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ than the parent graph.

13) Without making a table, what is the vertex of $y=\left|x-9\right|+7$