Algebra 2 Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_

HW #9 Absolute Value Transformations

If $f\left(x\right)=\left|x\right|$ was transformed, what would the equation change to if:

|  |  |  |
| --- | --- | --- |
| 1. the graph moved down 2 units?
 | 1. the graph moved 1 unit to the right?
 | 1. the graph moved 4 units to the left?
 |
| 1. the graph had a vertex of (8, ½) ?
 | 1. the graph had a vertex of (1.5, 4.5)?
 | 1. the graph had a vertex of (-2.5, 3)
 |

Graph each transformation WITHOUT A CALCULATOR

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| --- | --- | --- |
| 1. Reflect $f\left(x\right)=\left|x-5\right|+2$ across the x – axis and write the new function below
 | 1. $g\left(x\right)=\left|x-6\right|$
 | 1. $p\left(x\right)=2\left|x-1\right|$

  |

Write the equation for each graph below.

|  |  |
| --- | --- |
| 10)  | 11)  |