For each of these functions, state the domain and range.

1. $y=\left|x-4\right|$

Solution: For this function, the domain is all *x* values, and the range is all *y* values greater than or equal to 0.

2. $y=\left|2x+2\right|$

The fact that *x* is multiplied by 2 does not affect the domain and range, so the domain is all *x* values, and the range is all *y* values greater than or equal to 0.

3. $y=\left|x-5\right|+2$

The +2 translates the graph up 2 units, so now we get the following:

Domain: All *x* values

Range: All *y* values greater than or equal to 2.