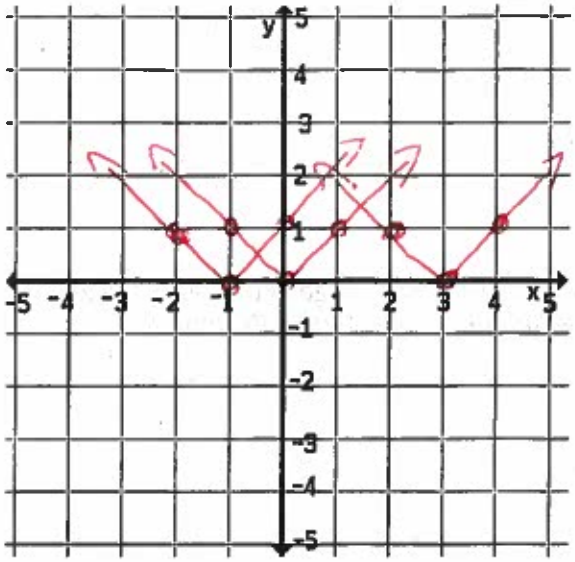
Algebra II A.68
Graphing Absolute Value Functions

Name _____

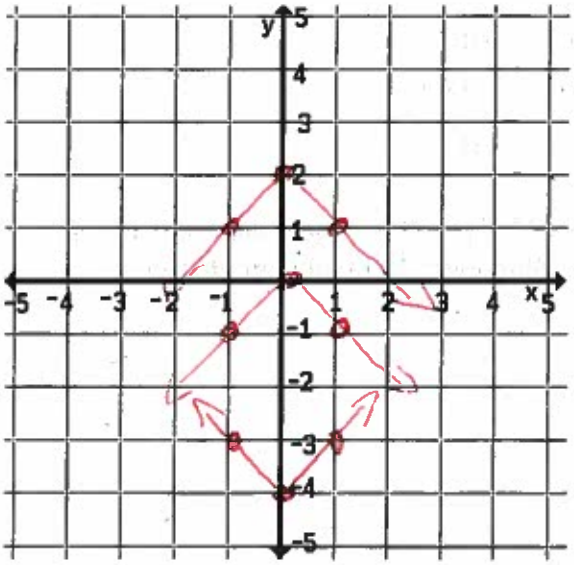


Graph these families on the same plane:

1. $\begin{cases} y=|x| \\ y=|x+1| \\ y=|x-3| \end{cases}$

True or False. The range is the same for all three functions. Explain your answer.

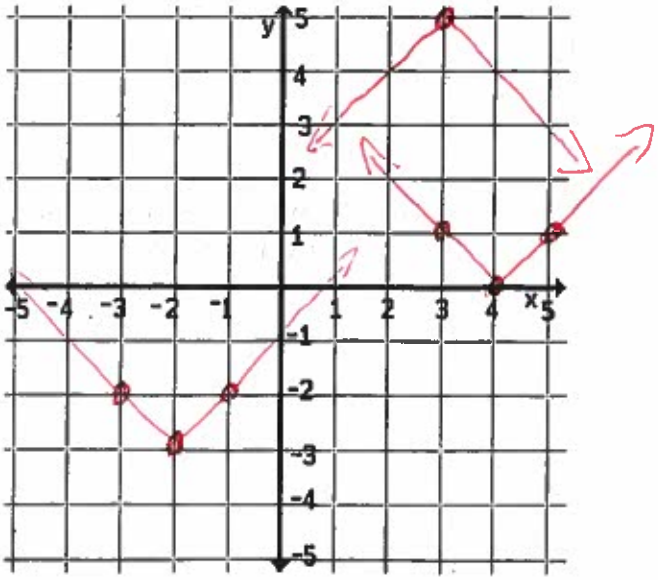
True
Range: $[0, \infty)$



2. $\begin{cases} y=-|x| \\ y=|x|-4 \\ y=-|x|+2 \end{cases}$

True or False. The range is the same for all three functions. Explain your answer.

False
Ranges: $[-4, \infty)$
$(-\infty, 0]$
$(-\infty, 2]$



3. $\begin{cases} y=|x|-4 \\ y=|x+2|-3 \\ y=-|x-3|+5 \end{cases}$

True or False. The domain is the same for all three functions. Explain your answer.

True
Domain: $(-\infty, \infty)$