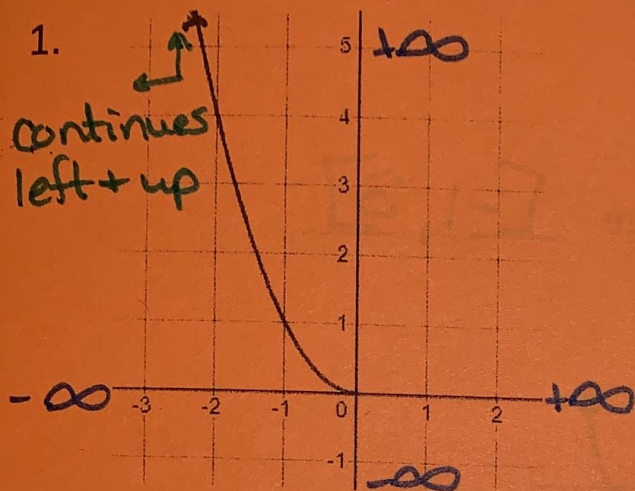


# DOMAIN & RANGE

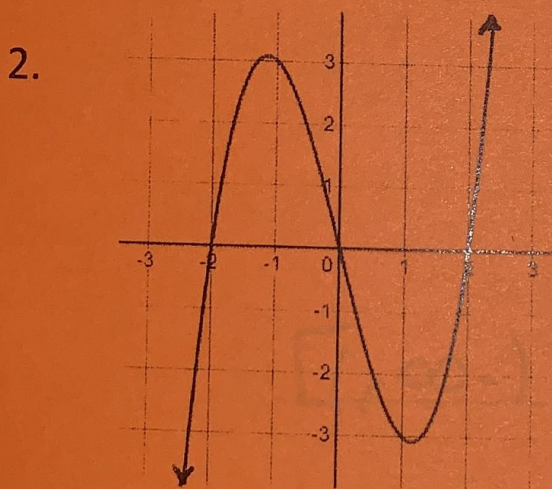
Domain: all x-values (left to right)

Range: all y-values (bottom to top)



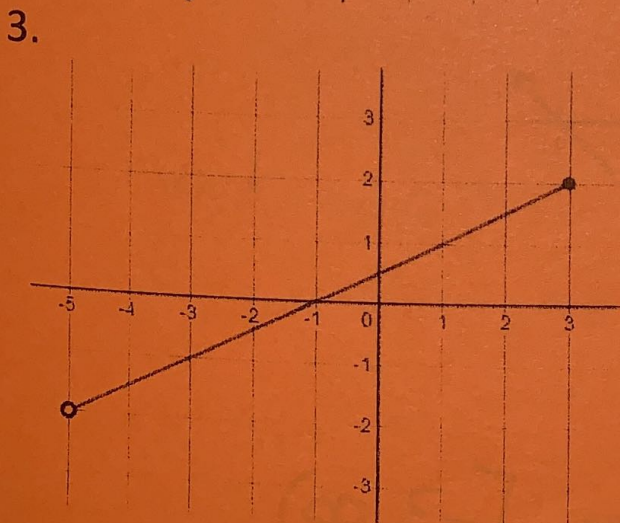
Domain  $(-\infty, 0]$   
left right

Range  $[0, \infty)$   
bottom top



Domain  $(-\infty, \infty)$

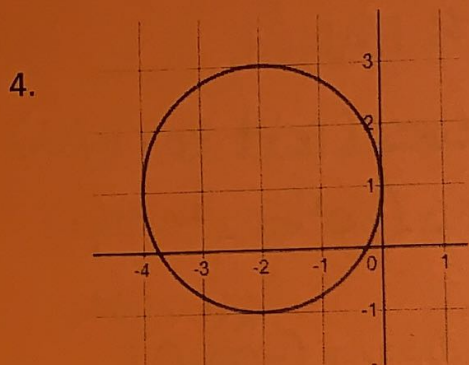
Range  $(-\infty, \infty)$



Domain  $(-5, 3]$   
left right

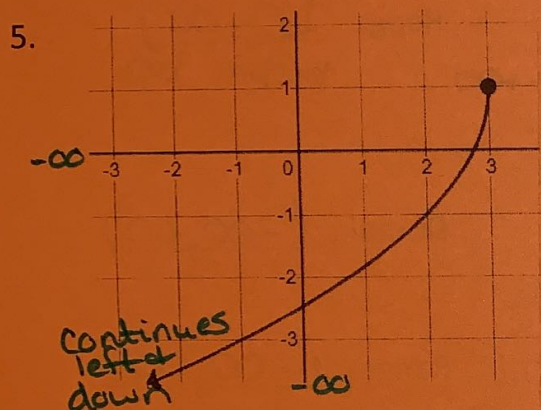
Range  $(-2, 2]$   
bottom top

\* A function always passes the vertical line test! (A vertical line  $\updownarrow$  can only touch 1 pt. on graph at a time.)



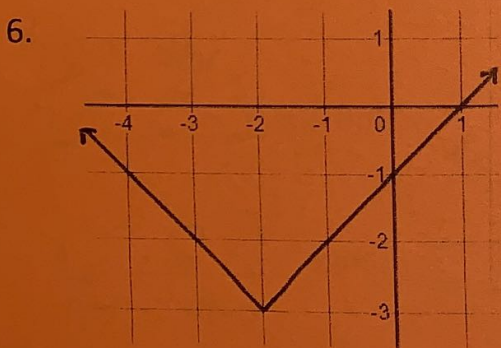
not a function

Domain  $[-4, 0]$  Range  $[-1, 3]$



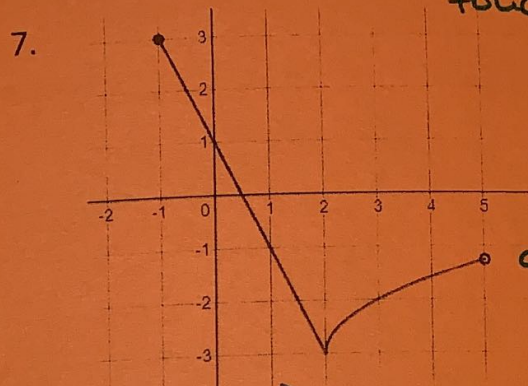
function

Domain  $(-\infty, 3]$  Range  $(-\infty, 1]$



function

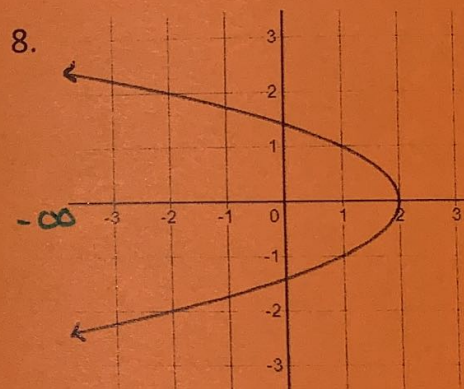
Domain  $(-\infty, \infty)$  Range  $[-3, \infty)$



function

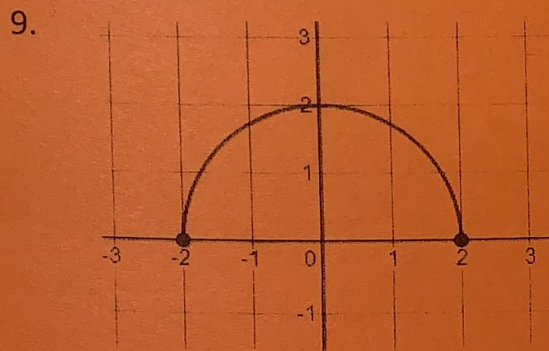
open, so not included

Domain  $[-1, 5)$  Range  $[-3, 3]$



not a function

Domain  $(-\infty, 2]$  Range  $(-\infty, \infty)$



function

Domain  $[-2, 2]$  Range  $[0, 2]$