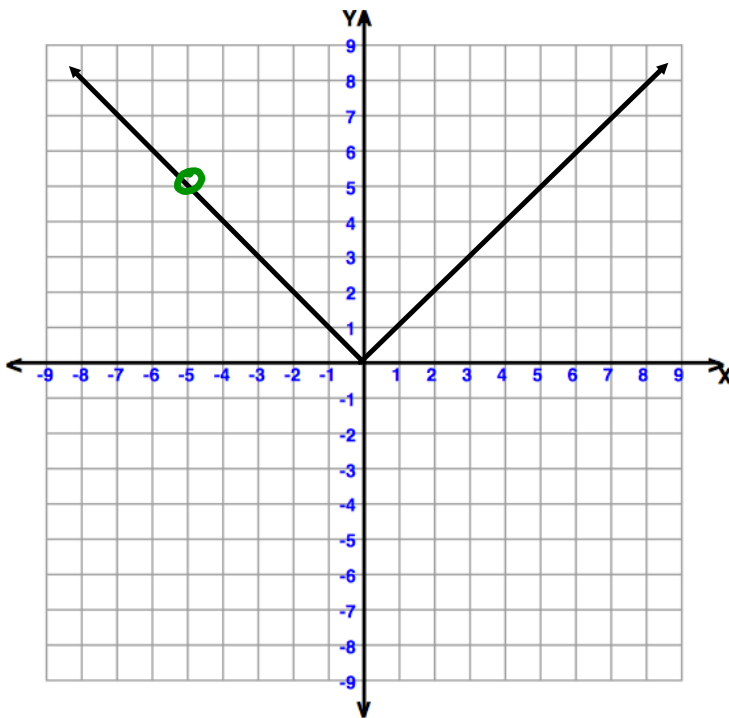


State the Domain, Range, and Intercepts for the following graph



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

Range:  $[0, \infty)$

x-intercept:  $\emptyset = (0, 0)$

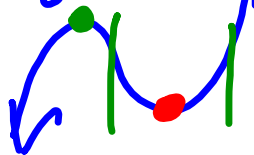
y-intercept:  $\emptyset = (0, 0)$

8-3

## Maximum & Minimum

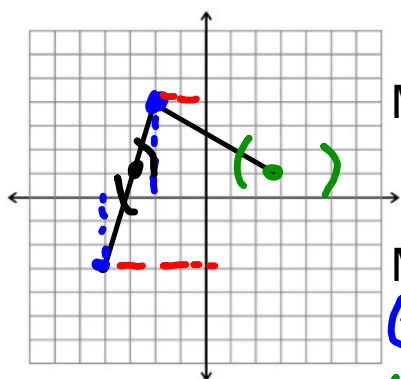
I can identify a maximum and minimum on a graph

Max  $\rightarrow$  highest point on a graph locally



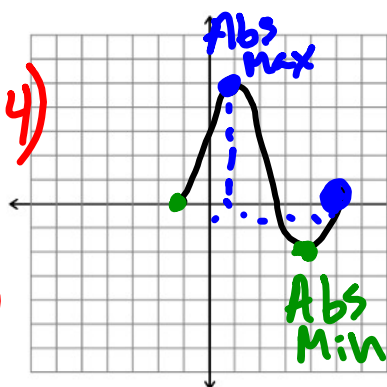
Min  $\rightarrow$  lowest point on a graph locally

We write maximum and minimum as ordered pairs



Max:  $(-2, 4)$

Min:  $(-4, -3)$   
 $(3, 1)$

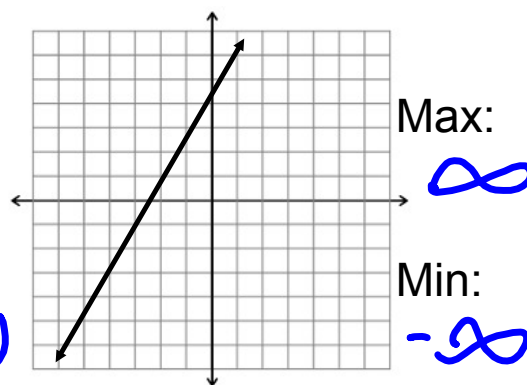
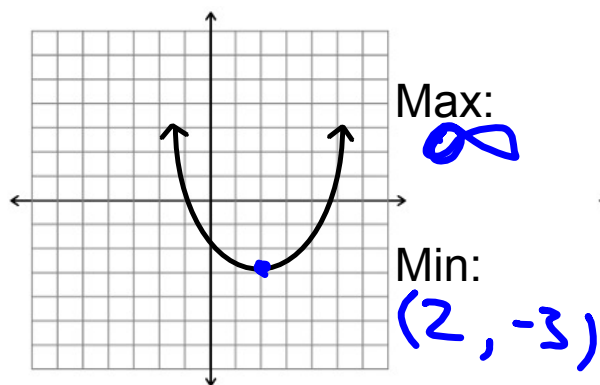


Max:  $(1, 5)$

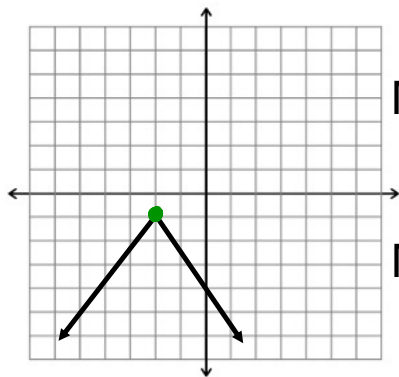
$(5, 0)$

Min:  $(4, -2)$

$(-1, 0)$



We write maximum and minimum as ordered pairs

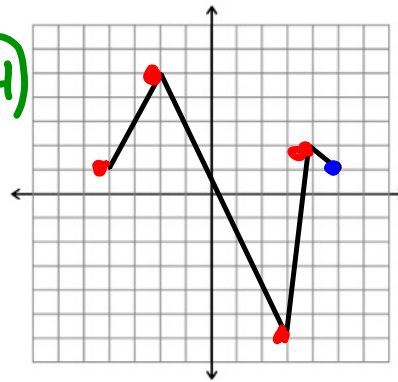


Max  $(-2, 1)$

Min:

none

$(-4, 1)$   
 $(5, 1)$   
 Lo max



Max:

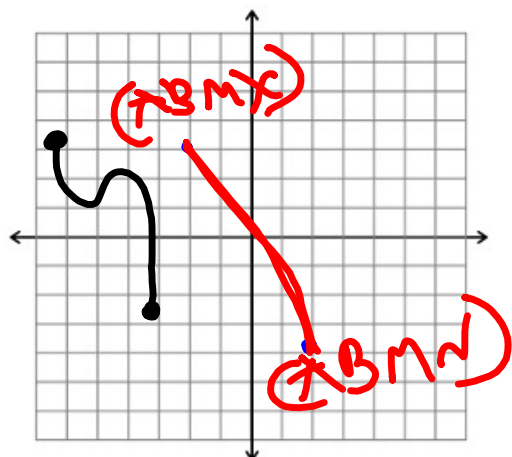
Min:

$(-2, 5)$   
 no max

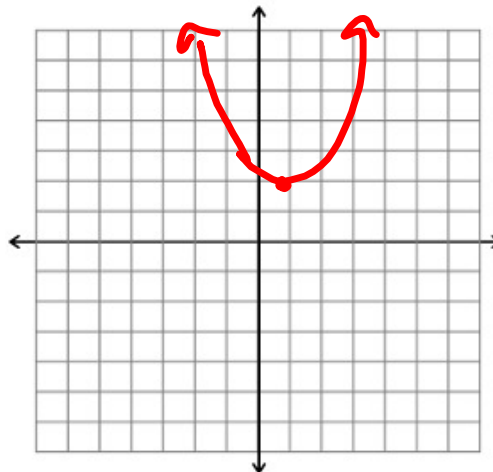
$(3, -6)$   
 no min

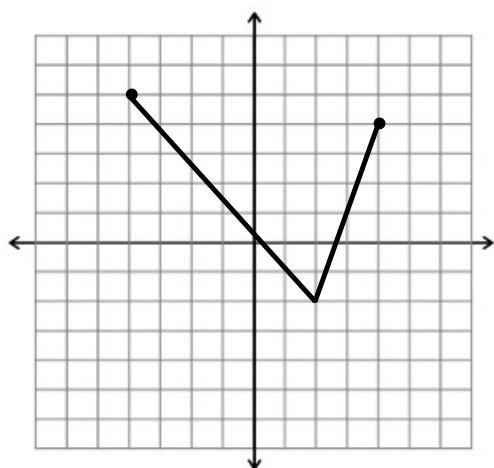
$(4, 2)$   
 Lo max

Draw a graph that has a maximum at  $(-2,3)$  and a minimum at  $(2,-4)$



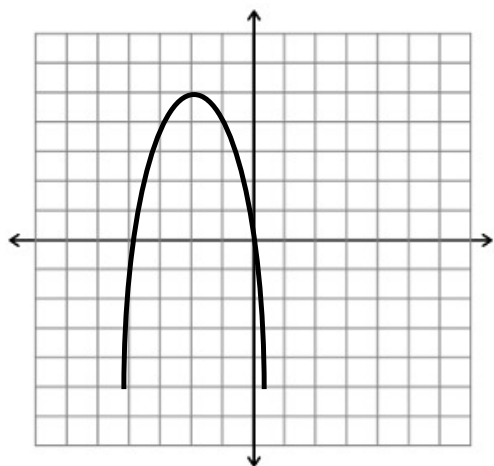
Draw a graph that has a minimum at  $(1,2)$  and no maximum





Max:

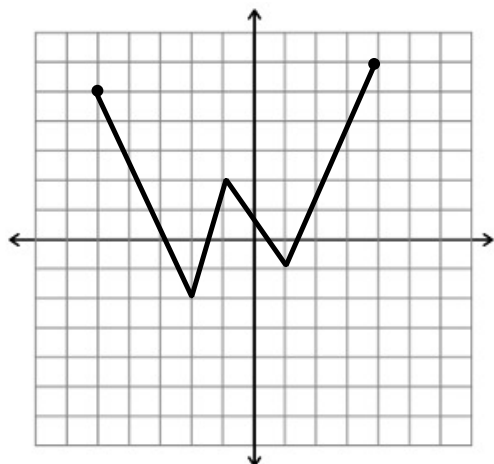
Min:



**Max:**

**Min:**





Max:

Min: