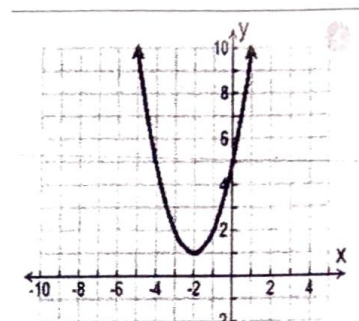
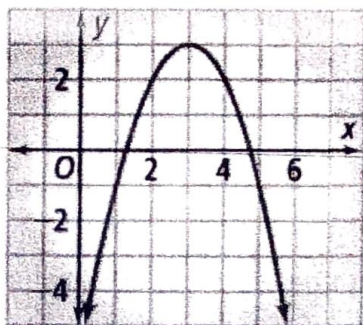
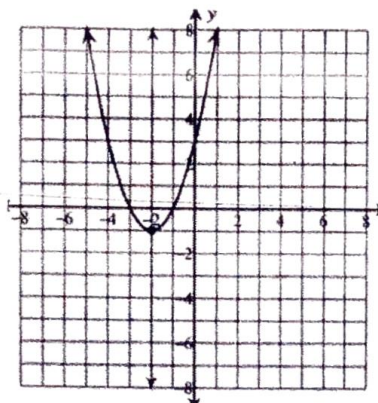


Notes: Write the equation of the graph in vertex form:  $y = a(x - h)^2 + k$

Determine if "happy" or "sad" for a value; find the vertex ( (h, k) or turning point) ) and plug in for h & k.



a = \_\_\_ h = \_\_\_ k = \_\_\_

Opens: up or down

Vertex: \_\_\_\_\_

Max or Min: \_\_\_\_\_

Axis of symmetry: \_\_\_\_\_

X-Intercept: \_\_\_\_\_

Y-Intercept: \_\_\_\_\_

Rate of Change from  $x = -1$  to  $x = 0$

Domain: \_\_\_\_\_

Range: \_\_\_\_\_

End behavior : As  $x \rightarrow -\infty, y \rightarrow$

$x \rightarrow \infty, y \rightarrow$

Interval of Increase: \_\_\_\_\_

Interval of Decrease: \_\_\_\_\_

a = \_\_\_ h = \_\_\_ k = \_\_\_

Opens: up or down

Vertex: \_\_\_\_\_

Max or Min: \_\_\_\_\_

Axis of symmetry: \_\_\_\_\_

X-Intercept: \_\_\_\_\_

Y-Intercept: \_\_\_\_\_

Rate of Change from  $x = 1$  to  $x = 2$

Domain: \_\_\_\_\_

Range: \_\_\_\_\_

End behavior : As  $x \rightarrow -\infty, y \rightarrow$

$x \rightarrow \infty, y \rightarrow$

Interval of Increase: \_\_\_\_\_

Interval of Decrease: \_\_\_\_\_

a = \_\_\_ h = \_\_\_ k = \_\_\_

Opens: up or down

Vertex: \_\_\_\_\_

Max or Min: \_\_\_\_\_

Axis of symmetry: \_\_\_\_\_

X-Intercept: \_\_\_\_\_

Y-Intercept: \_\_\_\_\_

Rate of Change from  $x = -2$  to  $x =$

Domain: \_\_\_\_\_

Range: \_\_\_\_\_

End behavior : As  $x \rightarrow -\infty, y \rightarrow$

$x \rightarrow \infty, y \rightarrow$

Interval of Increase: \_\_\_\_\_

Interval of Decrease: \_\_\_\_\_