

# Homework

1.  $f(x) = (x + 4)^2 - 2$

$a = \underline{\quad}$      $h = \underline{\quad}$      $k = \underline{\quad}$

Opens: up or down

Vertex:  $\underline{\hspace{2cm}}$

Max or Min:  $\underline{\hspace{2cm}}$

Axis of symmetry:  $\underline{\hspace{2cm}}$

X-Intercept:  $\underline{\hspace{2cm}}$

Y-Intercept:  $\underline{\hspace{2cm}}$

Rate of Change from  $x = -6$  to  $x = -3$

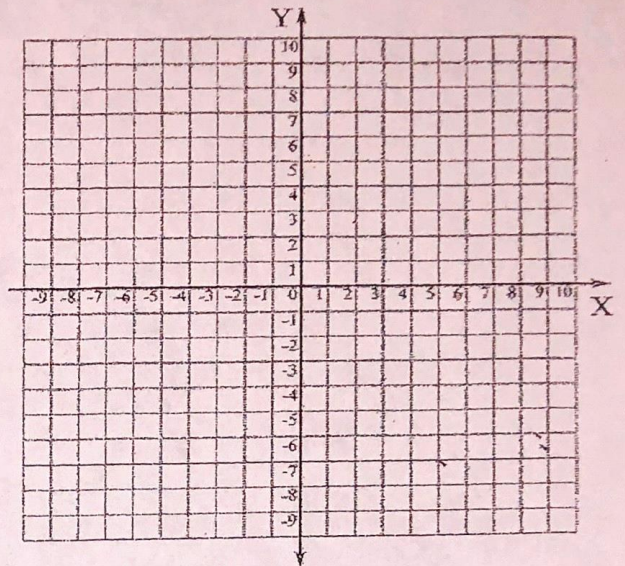
Domain:  $\underline{\hspace{2cm}}$

Range:  $\underline{\hspace{2cm}}$

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

$x \rightarrow \infty, y \rightarrow$

x	y



2.  $f(x) = -(x - 2)^2 + 3$

$a = \underline{\quad}$      $h = \underline{\quad}$      $k = \underline{\quad}$

Opens: up or down

Vertex:  $\underline{\hspace{2cm}}$

Max or Min:  $\underline{\hspace{2cm}}$

Axis of symmetry:  $\underline{\hspace{2cm}}$

X-Intercept:  $\underline{\hspace{2cm}}$

Y-Intercept:  $\underline{\hspace{2cm}}$

Rate of Change from  $x = 1$  to  $x = 4$

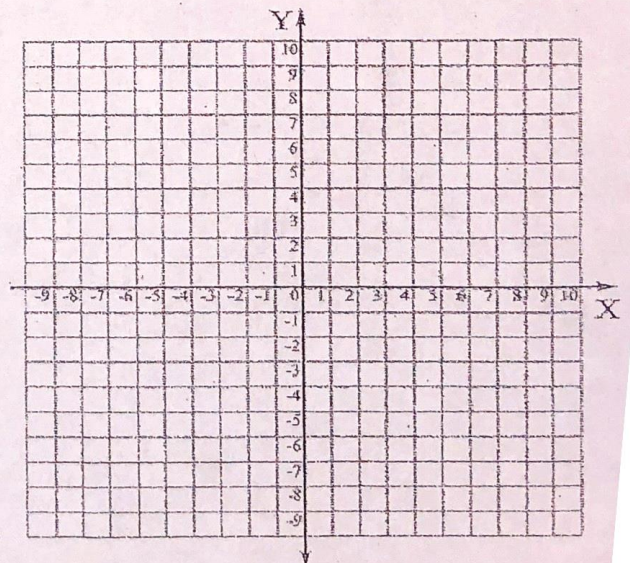
Domain:  $\underline{\hspace{2cm}}$

Range:  $\underline{\hspace{2cm}}$

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

$x \rightarrow \infty, y \rightarrow$

x	y



3.  $f(x) = 2(x + 3)^2 + 2$

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

Opens: up or down

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

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

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

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

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

Rate of Change from  $x = -3$  to  $x = -2$

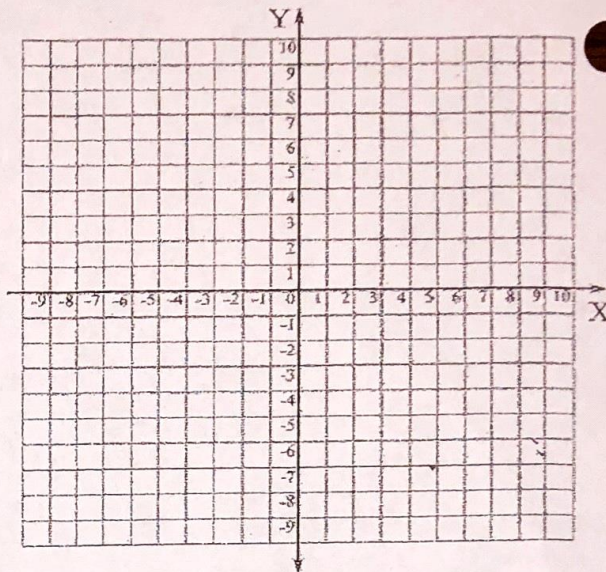
Domain: \_\_\_\_\_

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

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

$x \rightarrow \infty, y \rightarrow$

x	y



4

$f(x) = -2x^2$

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  $x \rightarrow -\infty, y \rightarrow$

$x \rightarrow \infty, y \rightarrow$

x	y

