

## Characteristics of Linear Functions Practice Worksheet B

Name Key

Date \_\_\_\_\_

1. Graph the line and write its characteristics:

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

Domain:  $-\infty < x < \infty$  Range:  $-\infty < y < \infty$

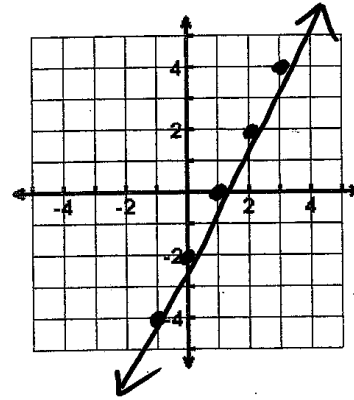
x-intercept:  $(1, 0)$  y-intercept:  $(0, -2)$

Increasing:  $-\infty < x < \infty$  Decreasing: not

Constant: not Slope: 2

End Behavior: As  $x \rightarrow +\infty$ ,  $f(x) \rightarrow +\infty$

As  $x \rightarrow -\infty$ ,  $f(x) \rightarrow -\infty$



2. Graph the line and write its characteristics:

$$f(x) = 3x - 6$$

Domain:  $-\infty < x < \infty$  Range:  $-\infty < y < \infty$

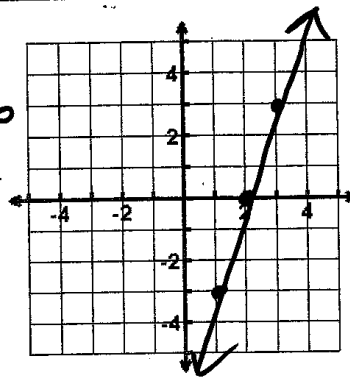
x-intercept:  $(2, 0)$  y-intercept:  $(0, -6)$

Increasing:  $-\infty < x < \infty$  Decreasing: not

Constant: not Slope: 3

End Behavior: As  $x \rightarrow +\infty$ ,  $f(x) \rightarrow +\infty$

As  $x \rightarrow -\infty$ ,  $f(x) \rightarrow -\infty$



3. Graph the line and write its characteristics:

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

Domain:  $-\infty < x < \infty$  Range:  $-\infty < y < \infty$

x-intercept:  $(2, 0)$  y-intercept:  $(0, 2)$

Increasing: not Decreasing:  $-\infty < x < \infty$

Constant: not Slope: -1

End Behavior: As  $x \rightarrow +\infty$ ,  $f(x) \rightarrow -\infty$

As  $x \rightarrow -\infty$ ,  $f(x) \rightarrow +\infty$

