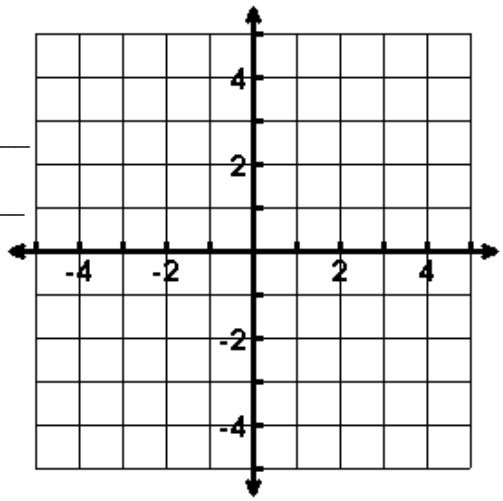
# Characteristics of Linear Functions

**NAME:**_____ **PD:** _____ **DATE:** _____

1. Graph the line and write its characteristics:

   $f(x)= 2x - 2$




   Domain: _____ Range: _____

   X intercept(s): _____ Y Intercept: _____

   Circle: Increasing or Decreasing

   Slope:_____

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

   $X \rightarrow -\infty$, $f(x) \rightarrow$ _____

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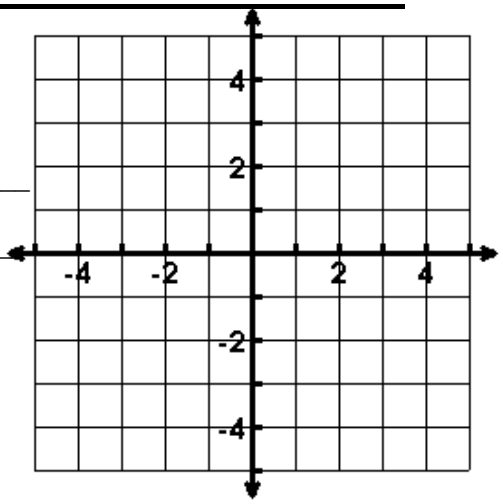
2. Graph the line and write its characteristics:

   $f(x) = 3x - 6$




   Domain: _____ Range: _____

   X intercept(s): _____ Y Intercept: _____

   Circle: Increasing or Decreasing

   Slope:_____

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

   $X \rightarrow -\infty$, $f(x) \rightarrow$ _____

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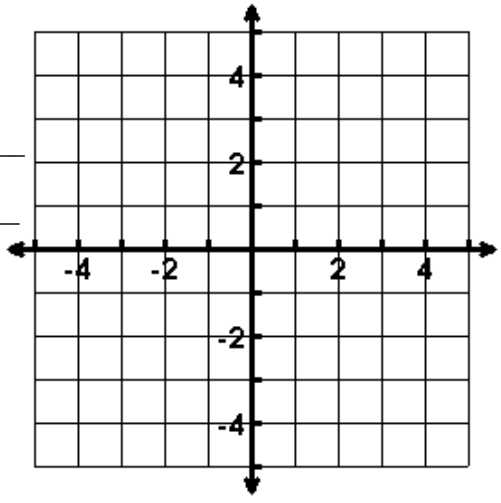
3. Graph the line and write its characteristics:

   $f(x) = -x + 2$




   Domain: _____ Range: _____

   X intercept(s): _____ Y Intercept: _____

   Circle: Increasing or Decreasing

   Slope:_____

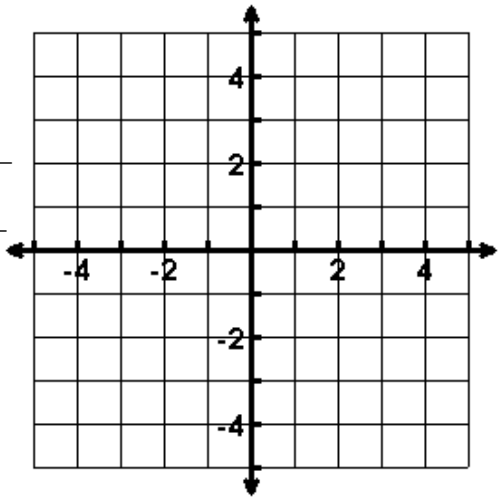
   End Behavior: $x \rightarrow \infty$, $f(x) \rightarrow$ _____

   $X \rightarrow -\infty$, $f(x) \rightarrow$ _____

Characteristics of Linear Functions

4. Graph the line and write its characteristics

$f(x) = -\frac{3}{4}x$




Domain: _____ Range: _____

X intercept(s): _____ Y Intercept: _____

Circle: Increasing or Decreasing

Slope:_____

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

$X \rightarrow -\infty$, $f(x) \rightarrow$ _____

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5. Using the table of values find the characteristics

| x | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
|---|---|---|---|---|---|---|---|
| y | -6 | -3 | 0 | 3 | 6 | 9 | 12 |

Domain: _____ Range: _____

X intercept(s): _____ Y Intercept: _____

Circle: Increasing or Decreasing

Slope:_____

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

$X \rightarrow -\infty$, $f(x) \rightarrow$ _____

Equation:_____

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6. Using the table of values find the characteristics.

Domain: _____ Range: _____

X intercept(s): _____ Y Intercept: _____

Circle: Increasing or Decreasing

Slope:_____

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

$X \rightarrow -\infty$, $f(x) \rightarrow$ _____

Equation:_____

| X | Y |
|---|---|
| 2 | 40 |
| 4 | 50 |
| 6 | 60 |
| 8 | 70 |
| 10 | 80 |