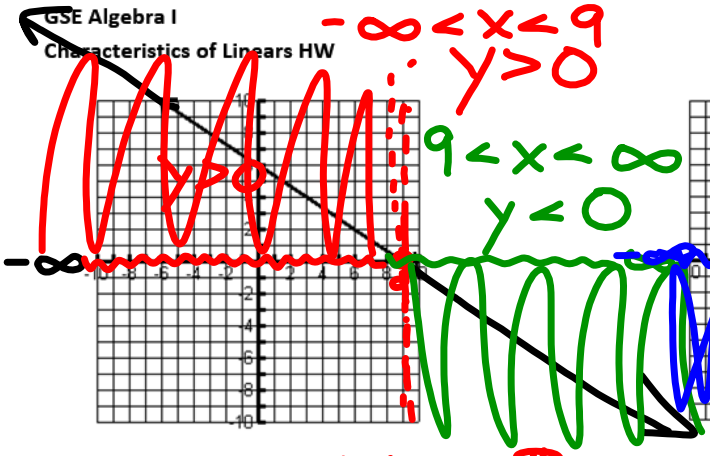
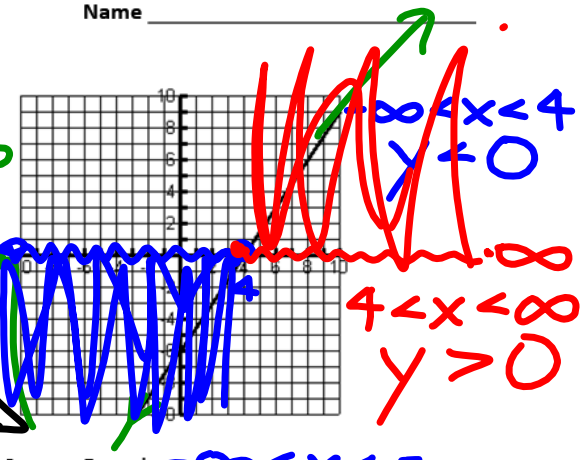
GSE Algebra I

Characteristics of Linears HW

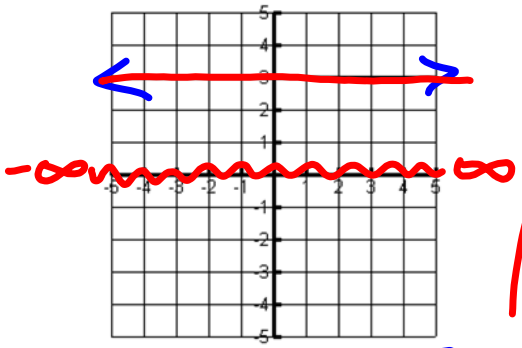
Name _____



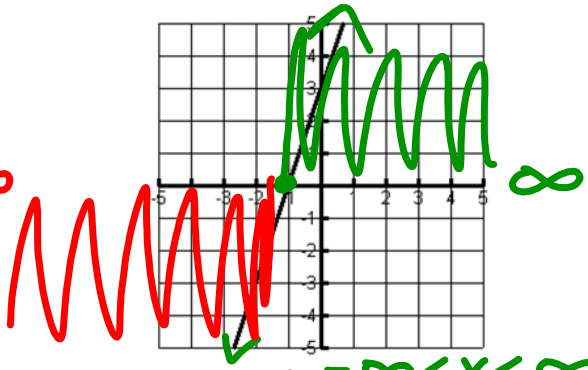
1. Domain: $-\infty < x < \infty$ or $\mathbb{R}$
   Range: $-\infty < y < \infty$ or $\mathbb{R}$
   Max: none Min: none
   X-Int: (9,0) Y-Int: (0,6)
   $y > 0$: $-\infty < x < 9$
   $y < 0$: $9 < x < \infty$
   Interval of increase: no
   Interval of decrease: $-\infty < x < \infty$
   Constant Interval: no



2. Domain: $-\infty < x < \infty$
   Range: $-\infty < y < \infty$
   Max: none Min: none
   X-Int: (4,0) Y-Int: (0,−6)
   $y > 0$: $4 < x < \infty$
   $y < 0$: $-\infty < x < 4$
   Interval of increase: $-\infty < x < \infty$
   Interval of decrease: no
   Constant interval: no



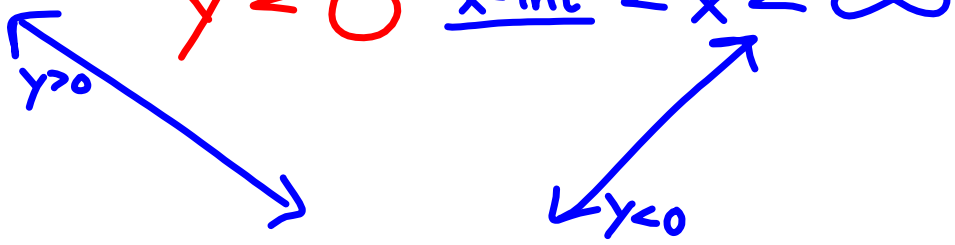
3. Domain: $-\infty < x < \infty$
   Range: $y = 3$
   Max: none
   Min: none
   X-Intercept: none
   Y-Intercept: (0,3)
   $y > 0$: $-\infty < x < \infty$
   $y < 0$: no
   Interval of increase: none
   Interval of decrease: none
   Constant Interval: $-\infty < x < \infty$



4. Domain: $-\infty < x < \infty$
   Range: $-\infty < y < \infty$
   Max: none
   Min: none
   X-Intercept: (−1,0)
   Y-Intercept: (0,3)
   $y > 0$: $-1 < x < \infty$
   $y < 0$: $-\infty < x < -1$
   Interval of increase: $-\infty < x < \infty$
   Interval of decrease: no
   Constant interval: no

$y > 0 \quad -\infty < x < \underline{\text{x-int}}$

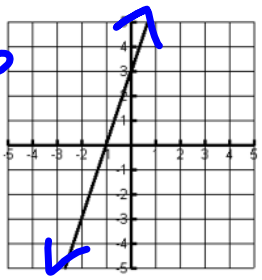
$y < 0 \quad \underline{\text{x-int}} < x < \infty$



Find the end behavior for the following graphs.

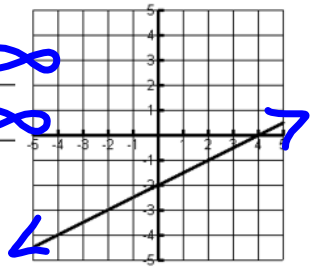
As x → - ∞, f(x) → $-\infty$

As x → ∞, f(x) → $+\infty$



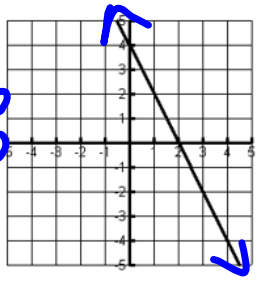
As x → - ∞, f(x) → $-\infty$

As x → ∞, f(x) → $+\infty$



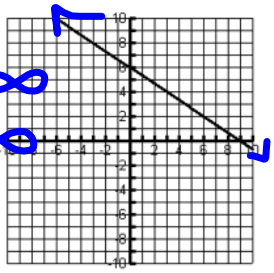
As x → - ∞, f(x) → $+\infty$

As x → ∞, f(x) → $-\infty$



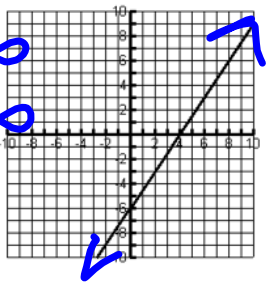
As x → - ∞, f(x) → $+\infty$

As x → ∞, f(x) → $-\infty$



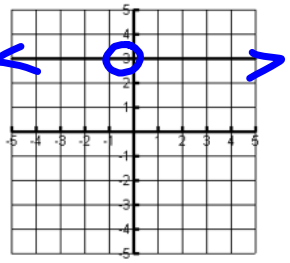
As x → - ∞, f(x) → $-\infty$

As x → ∞, f(x) → $+\infty$



As x → - ∞, f(x) → y

As x → ∞, f(x) → y



Find and describe the characteristics of the graph below in context.

Domain:

Range:

X-Int:

Y-Int:

Max:

Min:

Y > 0:

Interval(s) of Increase:

Interval(s) of Decrease:

Constant Interval(s):

Every morning Tom walks along a straight road from his home to a bus stop, a distance of 160 meters. The graph shows his journey on one particular day.