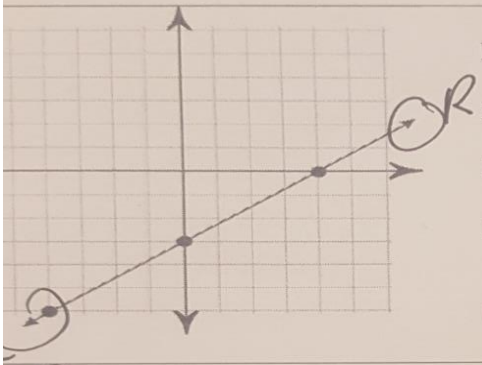
ra 1 ~ U2B Day 2 Characteristics of Linear Functions Notes

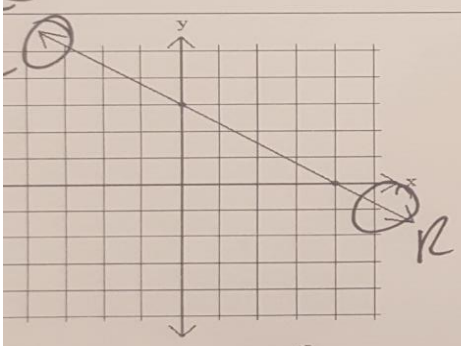
s to know:

Domain: the set of all input or x-values $(-\infty,\infty)$
Range: the set of all output or y-values $(-\infty,\infty)$
Interval of Increase (pos. slope) & Decrease (neg slope): $(-\infty,\infty)$
End Behavior: the behavior of the function as it ~~appro~~ gets smaller (bigger)
x-intercept(s): point where graph crosses x-axis $(\#,0)$
y-intercept: point where graph crosses y-axis $(0,\#)$

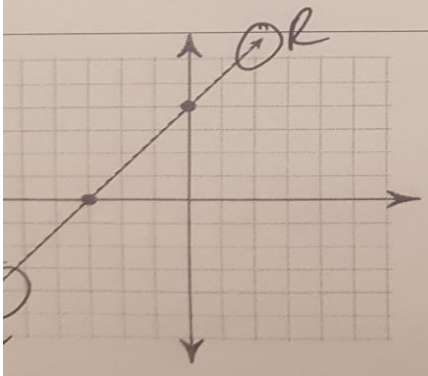
ples:



Domain: $(-\infty, \infty)$ x-intercept: $(4, 0)$
Range: $(-\infty, \infty)$ y-intercept: $(0, -2)$
Interval of increase or decrease?
End Behavior:
(left) As $x \to -\infty$, $f(x) \to -\infty$
(right) As $x \to \infty$, $f(x) \to \infty$



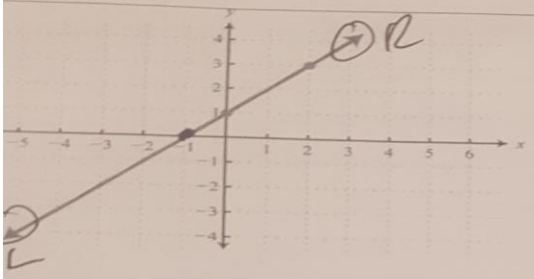
Domain: $(-\infty, \infty)$ x-intercept: $(4, 0)$
Range: $(-\infty, \infty)$ y-intercept: $(0, 3)$
Interval of increase or decrease?
End Behavior:
(left) As $x \to -\infty$, $f(x) \to \infty$
(right) As $x \to \infty$, $f(x) \to -\infty$



Domain: $(-\infty, \infty)$ x-intercept: $(-3, 0)$
Range: $(-\infty, \infty)$ y-intercept: $(0, 4)$
Interval of increase or decrease?
End Behavior:
(left) As $x \to -\infty$, $f(x) \to -\infty$
(right) As $x \to \infty$, $f(x) \to \infty$

f Change (AROC)/Slope Notes

ebra 1 ~ Day 2 Characteristics of Linear Functions Name _____



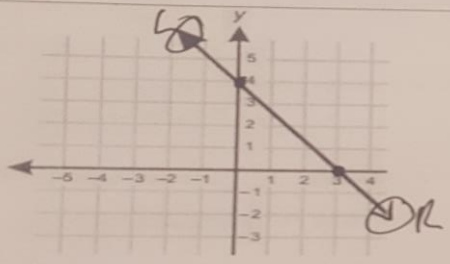
Domain: (−∞, ∞) x-intercept: (−1, 0)

Range: (−∞, ∞) y-intercept: (0, 1)

Interval of increase or decrease?

End Behavior:
(left) As x→−∞, f(x) → −∞

(right) As x→∞, f(x) → ∞



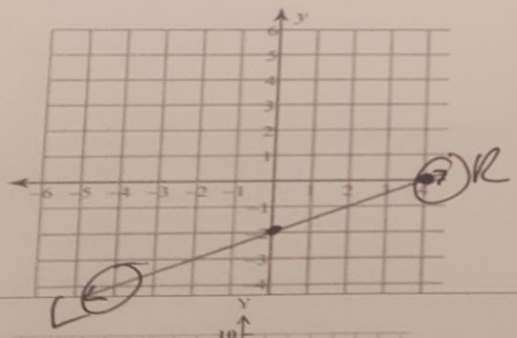
Domain: (−∞, ∞) x-intercept: (3, 0)

Range: (−∞, ∞) y-intercept: (0, 4)

Interval of increase or decrease?

End Behavior:
(left) As x→−∞, f(x) → ∞

(right) As x→∞, f(x) → −∞



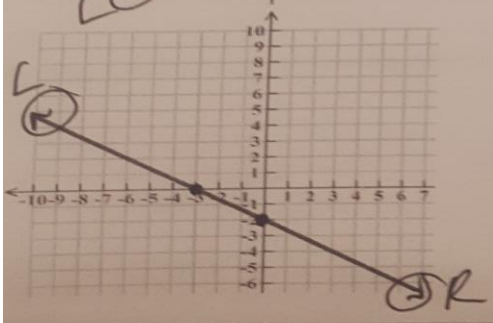
Domain: (−∞, ∞) x-intercept: (4, 0)

Range: (−∞, ∞) y-intercept: (0, −2)

Interval of increase or decrease?

End Behavior:
(left) As x→−∞, f(x) → −∞

(right) As x→∞, f(x) → ∞



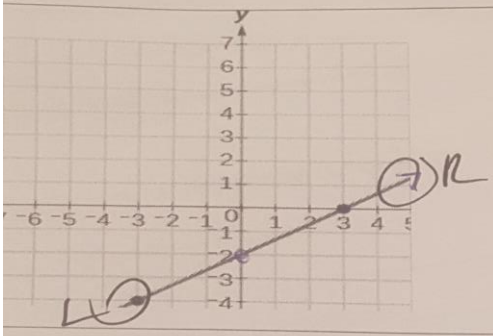
Domain: (−∞, ∞) x-intercept: (3, 0)

Range: (−∞, ∞) y-intercept: (0, −2)

Interval of increase or decrease?

End Behavior:
(left) As x→−∞, f(x) → ∞

(right) As x→∞, f(x) → −∞



Domain: $(-\infty, \infty)$

Range: $(-\infty, \infty)$

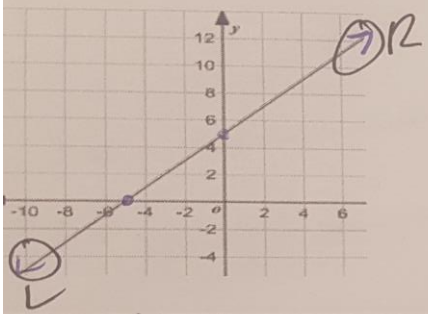
Interval of increase or decrease?

End Behavior:
(left) As $x \to -\infty$, $f(x) \to -\infty$

(right) As $x \to \infty$, $f(x) \to \infty$

x-intercept: $(3, 0)$

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



Domain: $(-\infty, \infty)$

Range: $(-\infty, \infty)$

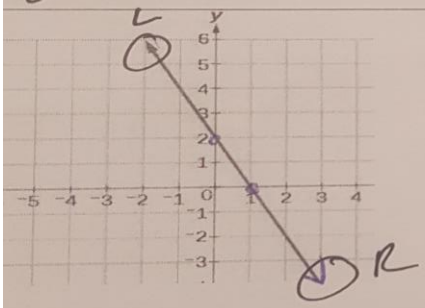
Interval of increase or decrease?

End Behavior:
(left) As $x \to -\infty$, $f(x) \to -\infty$

(right) As $x \to \infty$, $f(x) \to \infty$

x-intercept: $(-5, 0)$

y-intercept: $(0, 5)$



Domain: $(-\infty, \infty)$

Range: $(-\infty, \infty)$

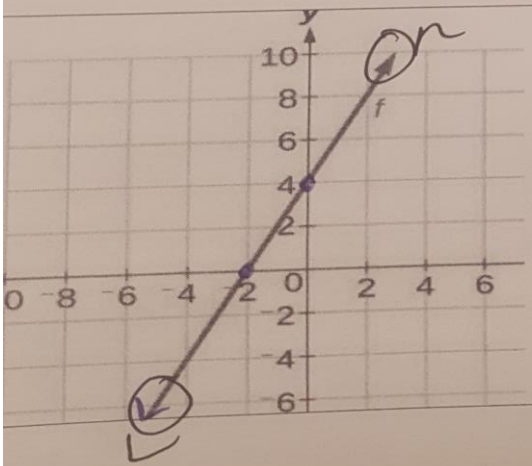
Interval of increase or decrease?

End Behavior:
(left) As $x \to -\infty$, $f(x) \to \infty$

(right) As $x \to \infty$, $f(x) \to -\infty$

x-intercept: $(1, 0)$

y-intercept: $(0, 2)$



Domain: $(-\infty, \infty)$

Range: $(-\infty, \infty)$

Interval of increase or decrease?

End Behavior:
(left) As $x \to -\infty$, $f(x) \to -\infty$

(right) As $x \to \infty$, $f(x) \to \infty$

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

y-intercept: $(0, 4)$