THUR 9-22-05

57 c) 4.9 $\frac{m}{s}$ ✓

0 to 1

0 to 2 d) 9.8 $\frac{m}{s}$ ✓

0 to 3 e) 14.7 $\frac{m}{s}$ ✓

1 to 2 ✗ f) ~~24.5~~ $\frac{m}{s}$ ~~19.6~~ 14.7

2 to 3 * g) 24.5 $\frac{m}{s}$

$\lim_{x \to 0^+} [x] = 0$

38 $\lim_{x \to 0^-} [x] = -1$

$\lim_{x \to 0} [x] = D.N.E.$

(57) f) $t = 1$ to $t = 2$

$$\text{Avg. speed} = \frac{\Delta d}{\Delta t} = \frac{d(2) - d(1)}{2 - 1}$$

$d = 4.9(t^2)$

$$= \frac{19.6 - 4.9}{1}$$

$$= \underline{\underline{14.7 \ \frac{m}{s}}}$$

g) $t = 2$ TO $t = 3$

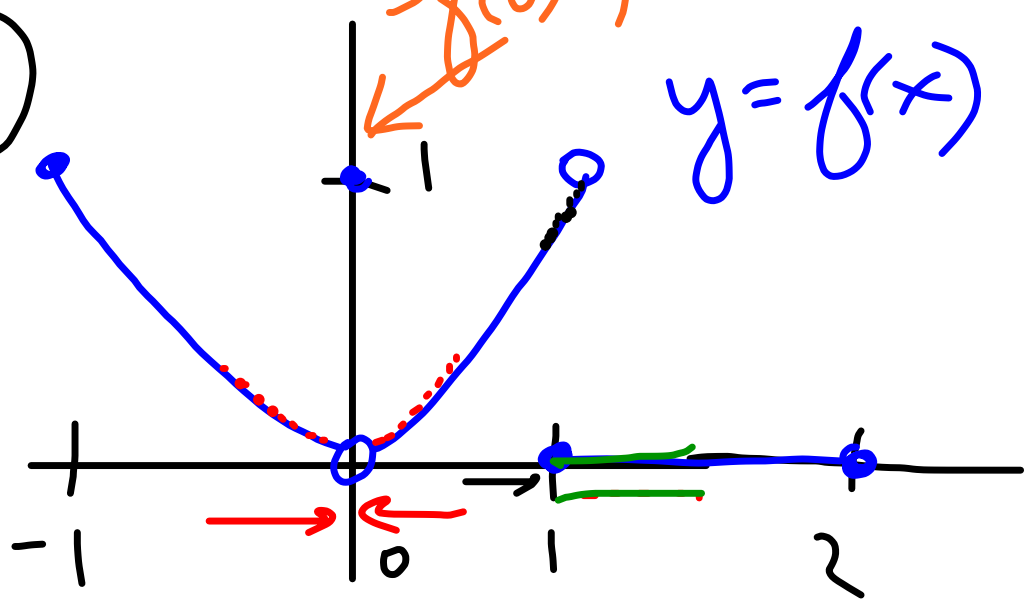
$$\text{AVG SPEED} = \frac{\Delta d}{\Delta t} = \frac{d(3) - d(2)}{3 - 2}$$

$$= \frac{9(4.9) - 4(4.9)}{1}$$

$$5(4.9)$$

$$= 24.5 \frac{m}{s}$$

(31)



$f(1) = 0$

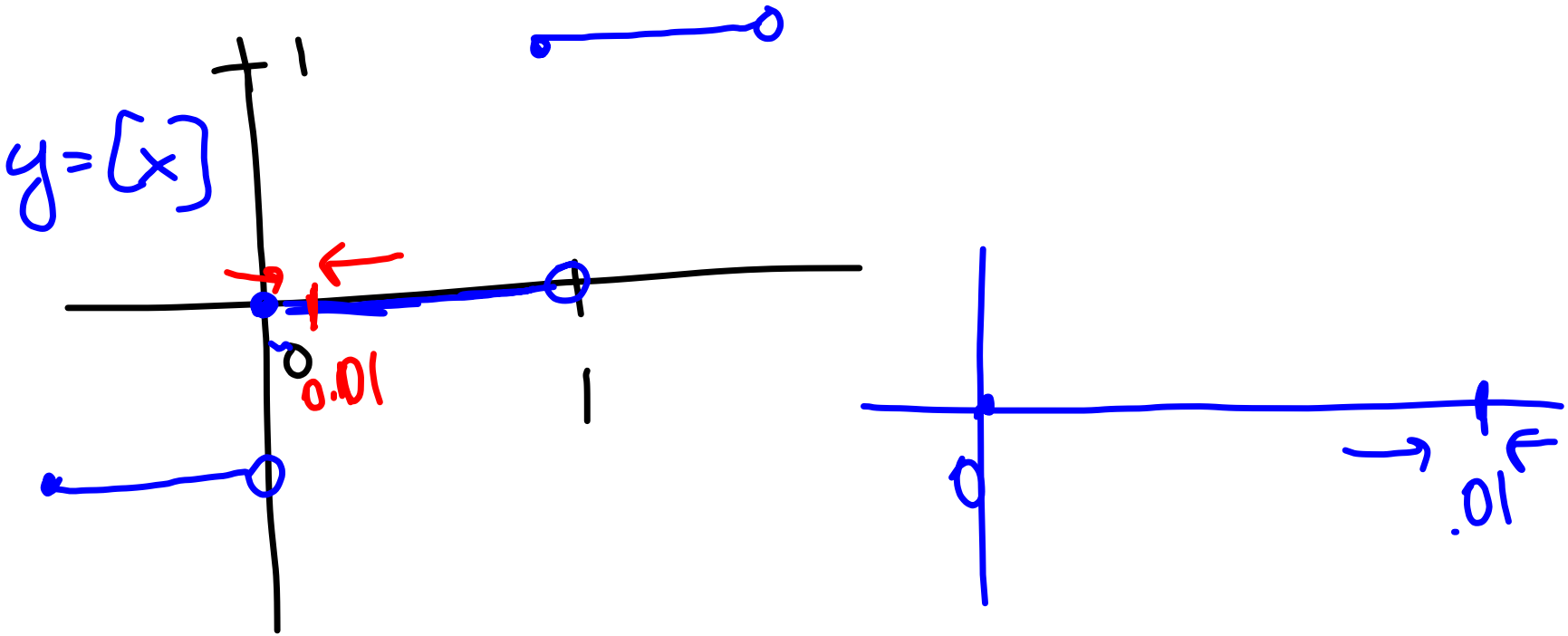
f) $\lim_{x \to 0} f(x) = 0$

i) $\lim_{x \to 1} f(x) =$

$\lim_{x \to 1^-} f(x) = 1$

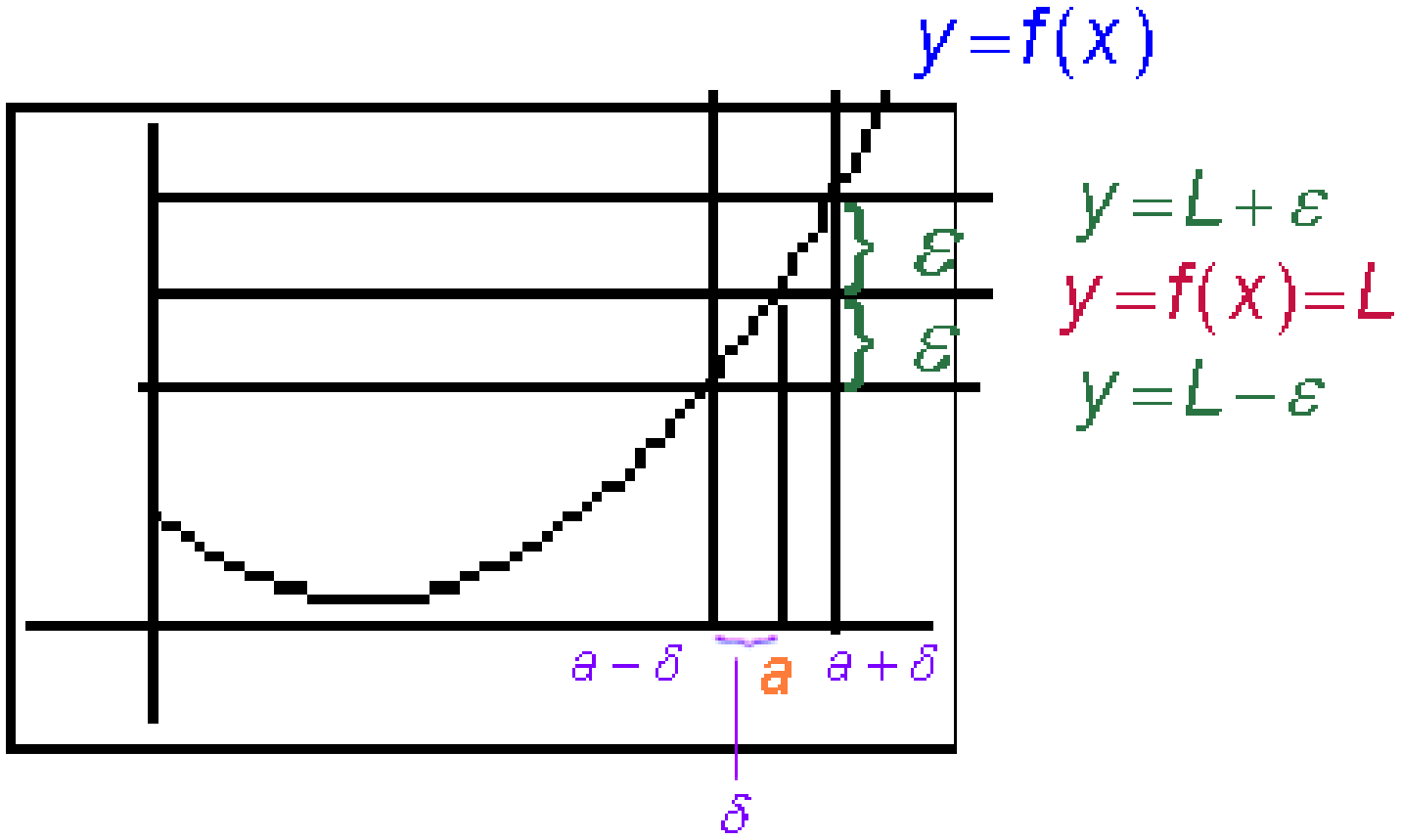
$\lim_{x \to 1^+} f(x) = 0$

(39) $\lim_{x \to 0.01} [x] = ?$



(23) $\lim_{x \to 0} \dfrac{5x^3 + 8x^2}{3x^4 - 16x^2}$

$= \lim_{x \to 0} \dfrac{x^2(5x+8)}{x^2(3x^2-16)} = \dfrac{8}{-16} = -\dfrac{1}{2}$



$|f(x) - L| < \varepsilon$ means $-\varepsilon < f(x) - L < \varepsilon$ OR $L - \varepsilon < f(x) < L + \varepsilon$

$|x - a| < \delta$ means $-\delta < x - a < \delta$ OR $a - \delta < x < a + \delta$

LOGS / LN ?

Solve:

2 d) $\ln x = 4$

$\log_e x = 4$

$= e^4 = x$

Simplify

F) $\ln e^x = u = x$

$\log_e e^x = u$

$e^u = e^x$

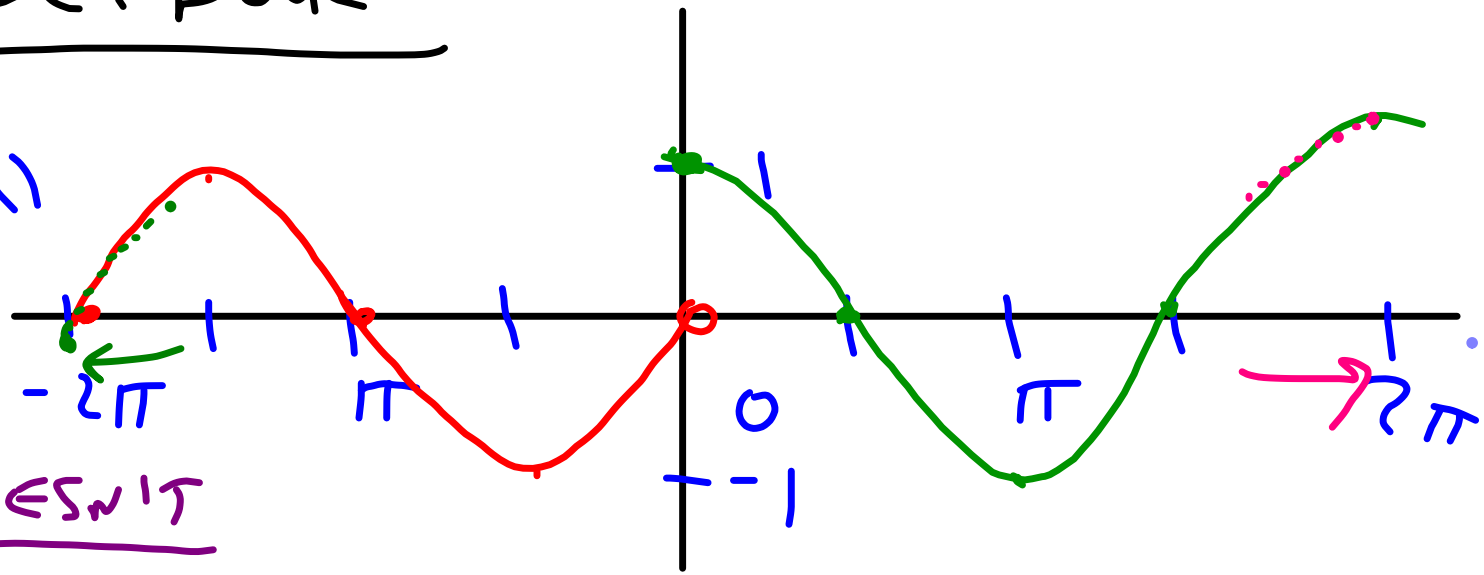
$u = x$

$\ln e^x = x$

$\log_e e^x = x$

CALC. BOOK

(49) a)



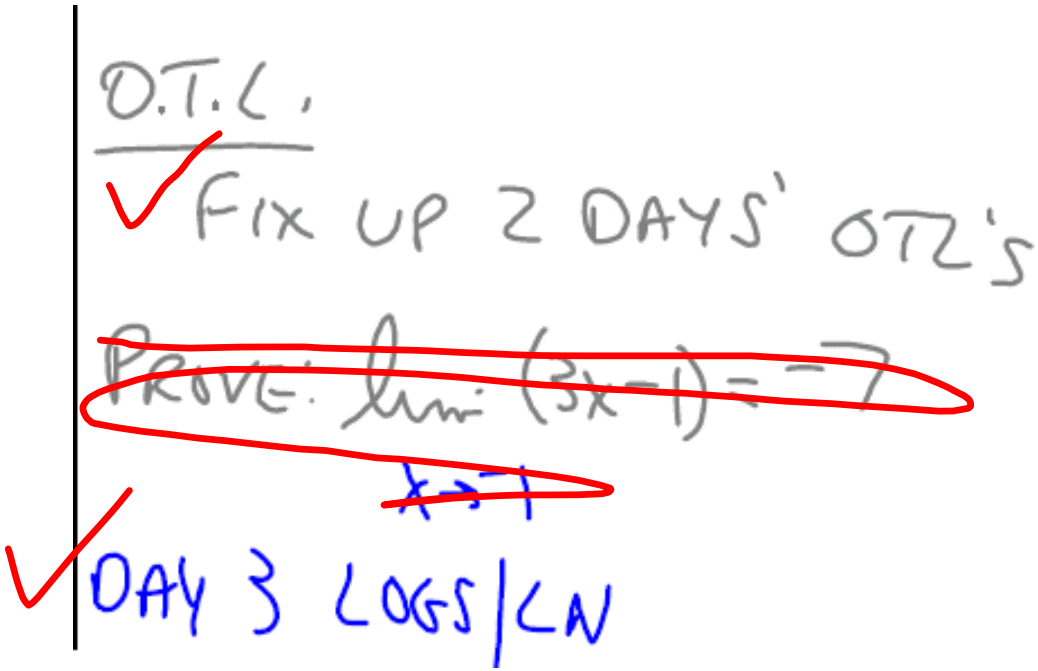
DOES NOT

b) $c = 0$

DOES

$\lim_{x \to 0} f(x) = ?$

$-2\pi < x < 0 \cup 0 < x < 2\pi$


O.T.L.
FIX UP 2 DAYS' OTL'S
PROVE: lim (3x-1) = -7
x→-1
DAY 3 LOGS/LN