Study Guide Corrections

#6, 32, 35b, 36

#6 $\lim_{x \to 2^+} \frac{f(x)}{g(x)} = \frac{-1}{0}$

= undefined or DNE

#32 $\lim_{x \to 2} \frac{x^2-3x-10}{x^2-4}$

$\lim_{x \to 2} \frac{(x+2)(x-5)}{(x-2)(x+2)} = \frac{-2-5}{-2-2} = \frac{-7}{-4} = \frac{7}{4}$

#35b. Shown as #36 on Solutions

$(3)^2 - 1 = 2c(3)$

$9 - 1 = 6c$

$\frac{8}{6} = c$

$4/3 = c$

#36 a.) $g(x) = \frac{x^2-2}{2x^2+3x-5} = \frac{x-3}{(2x+5)(x+1)}$

V.A. $x = \frac{5}{2}$ $x = +1$

H.A. $y = 0$

b.) $f(x) = \frac{x^2-2x}{x+2} = \frac{x(x-2)}{x+2}$

V.A: $x = -2$

H.A: None

c.) $h(x) = \frac{x^2-4}{x^2+4} = \frac{(x-2)(x+2)}{x^2+4}$

V.A: None

H.A: $y = 1$

V.A. $x^2+4=0$

$x^2 = -4$

$\sqrt{x^2} = \sqrt{-4}$

EEK!

Non real