Limit Kontinu - Problem Set 1.6

9. $h(x) = \frac{x^2-9}{x-3}$

$h(3) = \frac{3^2-9}{3-3} = \frac{0}{0} = 1$

$\lim_{x\to 3} h(x) = \lim_{x\to 3} \frac{x^2-9}{x-3} = \lim_{x\to 3} \frac{(x-3)(x+3)}{x-3} = \lim_{x\to 3} x + 3 = 3 + 3 = 6$

$\lim_{x\to 3} h(x) \neq h(x)$ *… tidak kontinu di titik x=3*

14. $f(t) = \begin{cases} t^2 - 9 & if\ x \leq 3 \\ (3-t)^2 & if\ x > 3 \end{cases}$

$f(3) = t^2 - 9 = 3^2 - 9 = 9 - 9 = 0$

$\lim_{t\to 3^-} f(t) = \lim_{t\to 3^-} t^2 - 9 = 3^2 - 9 = 9 - 9 = 0$

$\lim_{t\to 3^+} f(t) = \lim_{t\to 3^+} (3-t)^2 = (3-3)^2 = 0^2 = 0$

$\lim_{t\to 3} f(t) = f(t)$ *… kontinu di titik x=3*