

Assignment

12.1 cont

P. 826 (45-64 all)

Limits by substitution

Sometimes you just have to substitute the x -value in, to get the answer.

(As long as you do NOT get zero or ∞ in the denominator)

$$(45) \quad \lim_{x \rightarrow 4} (8 - x^2) = 8 - 4^2 = 8 - 16 = \boxed{-8}$$

$$(53) \quad \lim_{x \rightarrow -1} \frac{6x + 5}{3x - 7} = \frac{6(-1) + 5}{3(-1) - 7} = \frac{-6 + 5}{-3 - 7} = \frac{-1}{-10} = \boxed{\frac{1}{10}}$$

$$(63) \quad \lim_{x \rightarrow 1/2} \arcsin x = \arcsin \frac{1}{2} = \boxed{\pi/6}$$

(use unit circle)