

## Class Discussion

### Unit 1 Topic 5 Combination of Functions

Objective:

The chain operator for functions:  $(f \circ g)(x) = f(g(x))$

Ex:

Assume  $f(x) = x + 1$ ,  $g(x) = \frac{1}{x+2}$ , write  $f \circ g(x)$  and  $g \circ f(x)$

Ex1:

Let  $f(x) = 2x - 1$  and  $g(x) = |x + 3|$

(1) If  $h(x) = f \circ g(x)$ , find implied domain for  $h(x)$  and its range.

(2) if  $k(x) = g \circ f(x)$ , find implied domain for  $k(x)$  and its range.