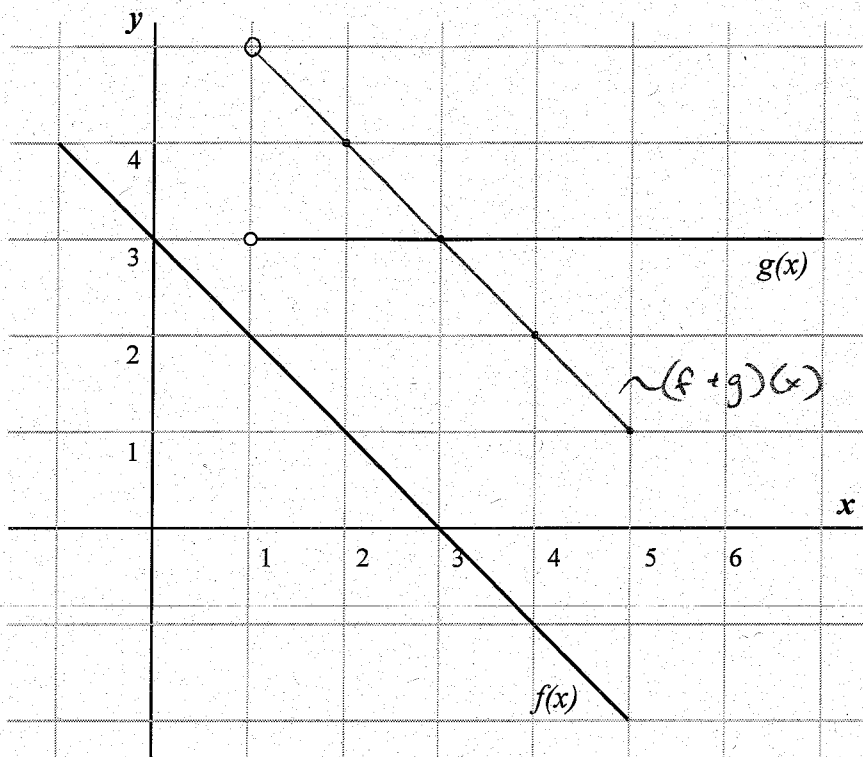


2.2

Math 173 – Section ~~11~~: Algebra of Functions

Consider the functions  $f(x)$  and  $g(x)$  as shown in the following graph.



Sketch on the graph the function  $(f+g)(x)$ .

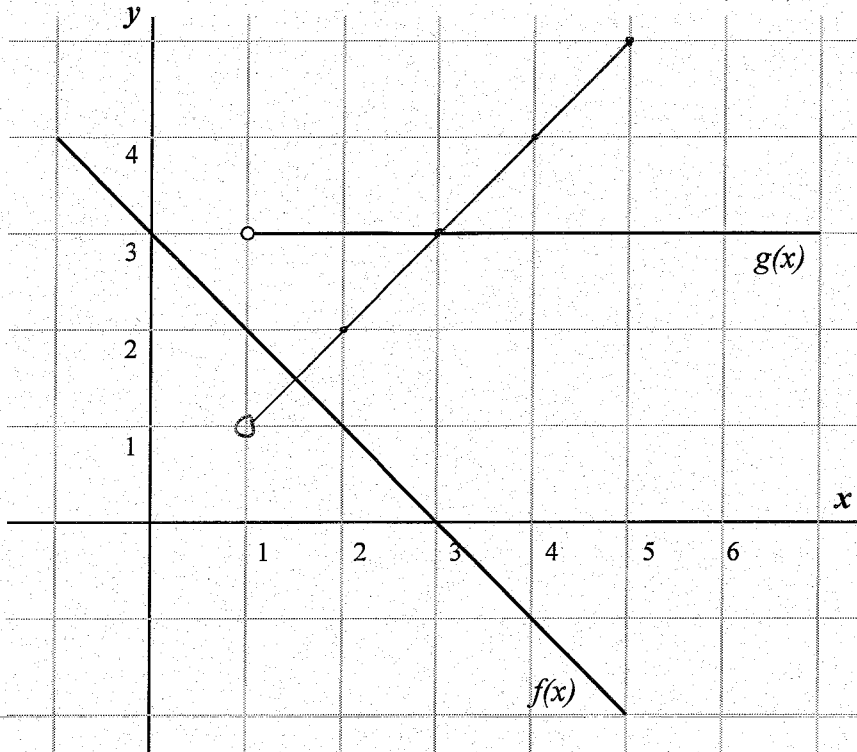
Now, give the domain of

$$f(x): \quad \underline{[-1, 5]} \quad \text{or} \quad \{x \mid -1 \leq x \leq 5\}$$

$$g(x): \quad \underline{(1, 7]} \quad \text{or} \quad \{x \mid 1 < x \leq 7\}$$

$$(f+g)(x): \quad \underline{(1, 5]}$$

Consider the functions  $f(x)$  and  $g(x)$  again.



Sketch the graph of  $(g-f)(x)$ .

Also, give the domain of

$(g-f)(x)$ :  $(1, 5]$

$(g/f)(x)$ :  $(1, 3) \cup (3, 5]$   
 because at 3,  $f(3)=0$  and  
 can't divide by 0

$(f/g)(x)$ :  $(1, 5]$