

Math 1171

Homework #1

1.1 #4cd, 1.2 #5  
App D #35, 1.3 #4ab

1.1 #4c  $f(x) = g(x)$   
when  $x = -2$  &  $x = 2$

d  $f(x) \leq g(x)$   
on  $[-4, 2]$  and  $[2, 3]$

1.2 #5  $\frac{\cos x}{1 - \sin x}$  is continuous when denom  $\neq 0$

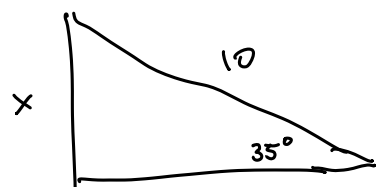
$$1 - \sin x = 0$$

$$\sin x = 1$$

$x = \pi/2 + 2\pi n$  for any integer  $n$ .

$\therefore \frac{\cos x}{1 - \sin x}$  is continuous for all  
real #s except  $\pi/2 + 2\pi n$

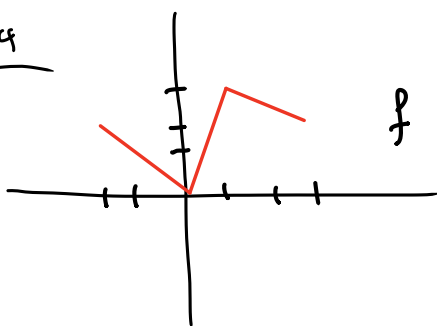
App D #35



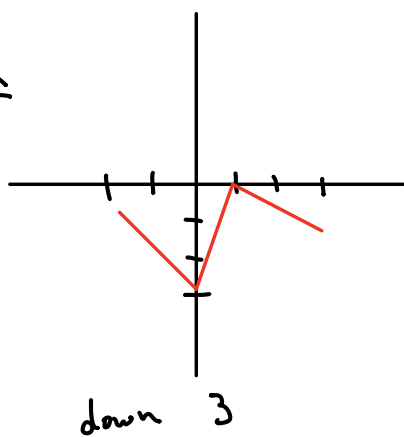
$$\sin 35^\circ = \frac{x}{10}$$

$$x = 10 \sin 35^\circ \\ = 5.735\dots$$

1.3 #4



19



16

