

**Quiz 1**  
Oct. 3, 2007

1. (5 pts) Which of the following pairs of functions are inverse functions of each other on the implied domains?

A)  $f(x) = |x|, g(x) = |x|$   
C)  $f(x) = \frac{1}{x}, g(x) = \frac{1}{x},$

B)  $f(x) = \frac{1}{x}, g(x) = \frac{x}{1},$   
D)  $f(x) = \sqrt{x}, g(x) = x^2.$

2. (5 pts) Which one of the lines below is parallel(平行) to the line  $y - 4 = 2(x - 7)$  ?

A)  $2x + y = -4,$   
C)  $-x - 2y = 1,$

B)  $2x - y = 7$   
D)  $-x + 2y = 2$

3. (10 pts) Find the composition  $f \circ g$  and identify the domain.

$f(x) = x^2 - 2, g(x) = \sqrt{x - 1}$

Note: You don't have to simplify the answer.

$f(g(x)) =$  \_\_\_\_\_;

Domain = \_\_\_\_\_