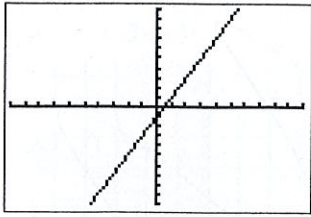
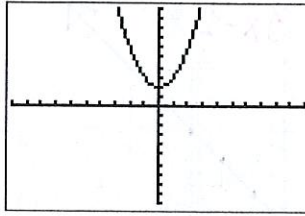


Are the following functions one to one?? (yes or no) (hint: use horizontal line test)

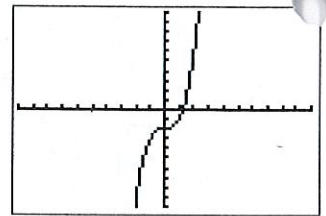
5) yes



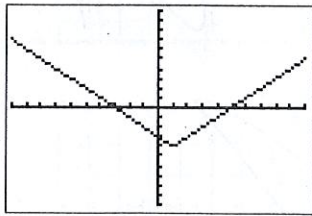
6) no



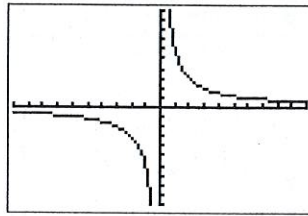
7) yes



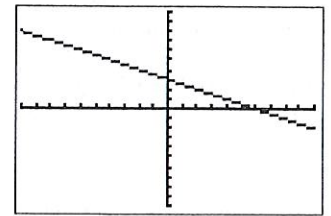
8) no



9) yes



10) yes



Find the inverse algebraically.

11) $g(x) = x^2 - 7$

$$y = x^2 - 7$$

$$x = y^2 - 7$$

$$\sqrt{y^2} = \sqrt{x+7}$$

$$y = \pm \sqrt{x+7}$$

12) $g(x) = 3x - 1$

$$y = 3x - 1$$

$$x = 3y - 1$$

$$3y = x + 1$$

$$y = \frac{1}{3}x + \frac{1}{3}$$

13) $g(x) = \sqrt{3x+9}$

$$y = \sqrt{3x+9}$$

$$(x)^2 = (\sqrt{3y+9})^2$$

$$x^2 = 3y + 9$$

$$3y = x^2 - 9$$

$$y = \frac{1}{3}x^2 - 3$$

Verify that $f(x)$ and $g(x)$ are inverse functions of each other using $f(g(x))$ and $g(f(x))$.

14) $f(x) = \frac{x-2}{3}$ $g(x) = 3x+2$