Given $f(x)=\sqrt{2x+5}$ $g(x)=-8x^2+3x$ $h(x)=\frac{6}{3x-5}$ and $k(x)=\frac{1}{4}x^{\frac{3}{2}}$

14. Find $(g\circ f)(x)$

$-16x-40+3\sqrt{2x+5}$

15. Find $g(k(x))$

$-\frac{1}{2}k^3+\frac{3}{4}k^{3/2}$

16. Find $g(g(x))$

$-512x^4+384x^3-96x^2+9x$

17. Find $(k\circ k)(x)$

$\frac{1}{32}x^{9/4}$

18. Find $(h\circ h)(x)$

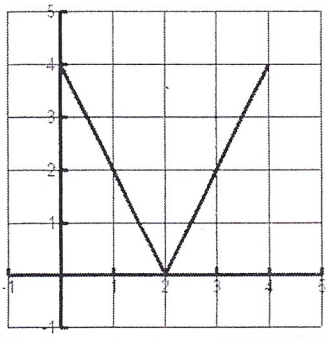
$\frac{18x-30}{-15x+43}$

19. Find $g^{-1}(g(x))$

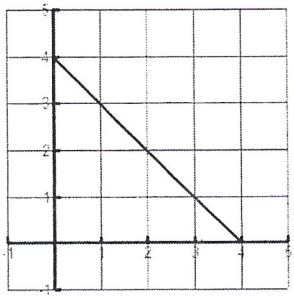
x

Use the graphs of f and g to evaluate the functions.

f(x)



g(x)



20. $(f+g)(3)$ 3	$(f/g)(2)$ 0	$(f^{-1})(4)$ 0, 4
21. $(f-g)(1)$ −1	$(fg)(4)$ 0	$(f^{-1})(2)$ 1, 3
22. $(f\circ g)(2)$ 0	$(g\circ f)(2)$ 4	$(g^{-1})(3)$ 1
23. $(f\circ g)(1)$ 2	$(g\circ f)(3)$ 2	$(g^{-1})(4)$ 0
24. $(f\circ f)(3)$ 0	$(f\circ f)(4)$ 4	$(f^{-1}\circ g^{-1})(1)$ $\frac{1}{2}$, $3\frac{1}{2}$
25. $(g\circ g)(1)$ 1	$(g\circ g)(0)$ 0	$(f^{-1}\circ f^{-1})(0)$ 1, 3