1.4 HW

Thursday, September 3, 2015
3:42 PM

- p. 116) \#1, 3, 9-21 odd
(1)

$$
\begin{array}{cc}
f+g=x^{2}+2 x-1 & \text { (3) } f+g=\sqrt{x}+\sin x \\
f-g=-x^{2}+2 x-1 & f-g=\sqrt{x}-\sin x \\
f g=2 x^{3}-x^{2} & f g=\sqrt{x} \sin x \\
D:(-\infty, \infty) & D: \infty)
\end{array}
$$

(a)

(11) $5,-6$
(13) 8,3 (15)

$$
\left.\begin{array}{ll}
f(g(x))=3 x-1 \\
g(f(x))=3 x+1
\end{array}\right\} D:(-\infty, \infty) \quad \begin{aligned}
&(17) f(g(x)=x-1,[-1, \infty) \\
& g(f(x))=\sqrt{x^{2}-1},(-\infty,-1] \cup[1, \infty)
\end{aligned}
$$

(19)

$$
\left.\begin{array}{lr}
f(g(x))=1-x^{2} ;[-1,1] & \text { (21) } f(g(x))=\frac{3 x}{2} \\
g(f(x))=\sqrt{1-x^{4}} ;[-1,1] & g(f(x))=\frac{2 x}{3}
\end{array}\right\} D:(-\infty, 0) \cup(0, \infty)
$$

