King Abdul Aziz University	Faculty of Sciences
Mathematics Department	Math 110
Workshop 4	Sections 2.3+2.4
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1) If $f(x)=x^2$, and $g(x)=\sqrt{4-x}$, then $(f+g)(x)=$

A $x^2-\sqrt{4-x}$ B $x^2+\sqrt{4-x}$ C $\sqrt{4-x^2}$ D $4-x$

2) If $f(x)=x^2$, and $g(x)=\sqrt{4-x}$, then $D_{f+g}=$

A $\mathbb{R}=(-\infty,\infty)$ B $(-\infty,4)$ C $(-\infty,4]$ D $[4,\infty)$

3) If $f(x)=x^2$, and $g(x)=\sqrt{4-x}$, then $(f-g)(x)=$

A $x^2-\sqrt{4-x}$ B $x^2+\sqrt{4-x}$ C $\sqrt{4-x^2}$ D $x^2\sqrt{4-x}$

4) If $f(x)=x^2$, and $g(x)=\sqrt{4-x}$, then $D_{f-g}=$

A $(-\infty,4]$ B $(-\infty,4)$ C $\mathbb{R}=(-\infty,\infty)$ D $[4,\infty)$

5) If $f(x)=x^2$, and $g(x)=\sqrt{4-x}$, then $(fg)(x)=$

A $x^2-\sqrt{4-x}$ B $x^2+\sqrt{4-x}$ C $\sqrt{4-x^2}$ D $x^2\sqrt{4-x}$

6) If $f(x)=x^2$, and $g(x)=\sqrt{4-x}$, then $D_{fg}=$

A $(-\infty,4]$ B $(-\infty,4)$ C $\mathbb{R}=(-\infty,\infty)$ D $[4,\infty)$

7) If $f(x)=x^2$, and $g(x)=\sqrt{4-x}$, then $(f\circ g)(x)=$

A $x^2-\sqrt{4-x}$ B $x^2\sqrt{4-x}$ C $\sqrt{4-x^2}$ D $4-x$

8) If $f(x)=x^2$, and $g(x)=\sqrt{4-x}$, then $D_{f\circ g}=$

A $(-\infty,4]$ B $(-\infty,4)$ C $(-\infty,-2]\cup[2,\infty)$ D $[-2,2]$

9) If $f(x)=x^2$, and $g(x)=\sqrt{4-x}$, then $(g\circ f)(x)=$

A $x^2-\sqrt{4-x}$ B $x^2+\sqrt{4-x}$ C $\sqrt{4-x^2}$ D $4-x$

10) f $f(x)=x^2$, and $g(x)=\sqrt{4-x}$, then $D_{g\circ f}=$

A $(-\infty,4]$ B $(-\infty,4)$ C $(-\infty,-2]\cup[2,\infty)$ D $[-2,2]$

11) If $f(x)=x^2$, then $(f\circ f)(x)=$

A x^3 B x^4 C x^2 D $\sqrt[4]{x}$

12) f $f(x)=x^2$, then $D_{f\circ f}=$

A $(-\infty,2]$ B $(-\infty,-2)$ C $\mathbb{R}=(-\infty,\infty)$ D $[-2,2]$

13) If $f(x)=x^2$, and $g(x)=\sqrt{4-x}$, then $(\frac{f}{g})(x)=$

A x^2 B $\frac{\sqrt{4-x}}{x^2}$ C $\sqrt{4-x^2}$ D $\frac{x^2}{\sqrt{4-x}}$

14) If $f(x)=x^2$, and $g(x)=\sqrt{4-x}$, then $D_{\frac{f}{g}} =$ $\boxed{A}$ $(-\infty,4]$ $\boxed{B}$ $(-\infty,4)$ $\boxed{C}$ $\mathbb{R}=(-\infty,\infty)$ $\boxed{D}$ $(-\infty,0)\cup(0,4]$
15) If $f(x)=x^2$, and $g(x)=\sqrt{4-x}$, then $(\frac{g}{f})(x)=$ $\boxed{A}$ x^2 $\boxed{B}$ $\frac{\sqrt{4-x}}{x^2}$ $\boxed{C}$ $\sqrt{4-x^2}$ $\boxed{D}$ $\frac{x^2}{\sqrt{4-x}}$
16) If $f(x)=x^2$, and $g(x)=\sqrt{4-x}$, then $D_{\frac{g}{f}} =$ $\boxed{A}$ $(-\infty,4]$ $\boxed{B}$ $(-\infty,4)$ $\boxed{C}$ $\mathbb{R}=(-\infty,\infty)$ $\boxed{D}$ $(-\infty,0)\cup(0,4]$
17) If $f(x)=9-x^2$, and $g(x)=10$, then $(f+g)(x)=$ $\boxed{A}$ $1-x^2$ $\boxed{B}$ $19-x^2$ $\boxed{C}$ $1+x^2$ $\boxed{D}$ $90-10x^2$
18) If $f(x)=9-x^2$, and $g(x)=10$, then $(f-g)(x)=$ $\boxed{A}$ $1-x^2$ $\boxed{B}$ $19-x^2$ $\boxed{C}$ $1+x^2$ $\boxed{D}$ $-x^2-1$
19) If $f(x)=9-x^2$, and $g(x)=10$, then $(g-f)(x)=$ $\boxed{A}$ $1-x^2$ $\boxed{B}$ $19-x^2$ $\boxed{C}$ $1+x^2$ $\boxed{D}$ $-x^2-1$
20) If $f(x)=9-x^2$, and $g(x)=10$, then $(fg)(x)=$ $\boxed{A}$ $1-x^2$ $\boxed{B}$ $19-x^2$ $\boxed{C}$ $1+x^2$ $\boxed{D}$ $90-10x^2$
21) If $f(x)=9-x^2$, and $g(x)=10$, then $(f\circ g)(x)=$ $\boxed{A}$ $1-x^2$ $\boxed{B}$ $9-(9-x^2)^2$ $\boxed{C}$ 10 $\boxed{D}$ -91
22) If $f(x)=9-x^2$, and $g(x)=10$, then $(g\circ f)(x)=$ $\boxed{A}$ $1-x^2$ $\boxed{B}$ $9-(9-x^2)^2$ $\boxed{C}$ 10 $\boxed{D}$ -91
23) If $f(x)=9-x^2$, and $g(x)=10$, then $(f\circ f)(x)=$ $\boxed{A}$ $1-x^2$ $\boxed{B}$ $9-(9-x^2)^2$ $\boxed{C}$ 10 $\boxed{D}$ -91
24) If $f(x)=9-x^2$, and $g(x)=10$, then $(g\circ g)(x)=$ $\boxed{A}$ $1-x^2$ $\boxed{B}$ $9-(9-x^2)^2$ $\boxed{C}$ 10 $\boxed{D}$ -91
25) If $f(x)=9-x^2$, $g(x)=\sin x$ and $h(x)=3x+2$, then $(f\circ g\circ h)(x)=$ $\boxed{A}$ $9-\sin^2(3x)$ $\boxed{B}$ $9-\sin(3x+2)$ $\boxed{C}$ $9-\sin^2(3x+2)$ $\boxed{D}$ $\sin^2(3x+2)$
26) If $f(x)=\sqrt{25+x^2}$, and $g(x)=x^3$, then $(f+g)(x)=$ $\boxed{A}$ $x^3\sqrt{25+x^2}$ $\boxed{B}$ $\sqrt{25+x^2}+x^3$ $\boxed{C}$ $\sqrt{25+x^2}-x^3$ $\boxed{D}$ $\frac{\sqrt{25+x^2}}{x^3}$

27) If $f(x)=\sqrt{25+x^2}$, and $g(x)=x^3$, then $(f-g)(x)=$

$\boxed{A}$ $x^3\sqrt{25+x^2}$ $\boxed{B}$ $\sqrt{25+x^2}+x^3$ $\boxed{C}$ $\sqrt{25+x^2}-x^3$ $\boxed{D}$ $\dfrac{\sqrt{25+x^2}}{x^3}$

28) If $f(x)=\sqrt{25+x^2}$, and $g(x)=x^3$, then $(fg)(x)=$

$\boxed{A}$ $x^3\sqrt{25+x^2}$ $\boxed{B}$ $\sqrt{25+x^2}+x^3$ $\boxed{C}$ $\sqrt{25+x^2}-x^3$ $\boxed{D}$ $\dfrac{\sqrt{25+x^2}}{x^3}$

29) If $f(x)=\sqrt{25+x^2}$, and $g(x)=x^3$, then $(\dfrac{f}{g})(x)=$

$\boxed{A}$ $\sqrt{\dfrac{25+x^2}{x^3}}$ $\boxed{B}$ $\dfrac{x^3}{\sqrt{25+x^2}}$ $\boxed{C}$ $\dfrac{\sqrt{26}}{x}$ $\boxed{D}$ $\dfrac{\sqrt{25+x^2}}{x^3}$

30) If $f(x)=\sqrt{25+x^2}$, and $g(x)=x^3$, then $(f\circ g)(x)=$

$\boxed{A}$ $\sqrt{25+x^6}$ $\boxed{B}$ $\sqrt{25+x^5}$ $\boxed{C}$ $\sqrt{(25+x^2)^3}$ $\boxed{D}$ $\sqrt[3]{(25+x^2)^2}$

31) If $f(x)=\sqrt{25+x^2}$, and $g(x)=x^3$, then $(g\circ f)(x)=$

$\boxed{A}$ $\sqrt{25+x^6}$ $\boxed{B}$ $\sqrt{25+x^5}$ $\boxed{C}$ $\sqrt{(25+x^2)^3}$ $\boxed{D}$ $\sqrt[3]{(25+x^2)^2}$

32) If $f(x)=\sqrt{x}$, and $g(x)=x-2$, then $(f\circ g)(x)=$

$\boxed{A}$ $\sqrt{x}-2$ $\boxed{B}$ $\sqrt{x-2}$ $\boxed{C}$ $(x-2)\sqrt{x}$ $\boxed{D}$ $x-4$

33) If $f(x)=\sqrt{x}$, and $g(x)=x-2$, then $(g\circ f)(x)=$

$\boxed{A}$ $\sqrt{x}-2$ $\boxed{B}$ $\sqrt{x-2}$ $\boxed{C}$ $(x-2)\sqrt{x}$ $\boxed{D}$ $x-4$

34) If $f(x)=\sqrt{x}$, and $g(x)=x-2$, then $(g\circ g)(x)=$

$\boxed{A}$ $\sqrt{x}-2$ $\boxed{B}$ $\sqrt{x-2}$ $\boxed{C}$ $(x-2)\sqrt{x}$ $\boxed{D}$ $x-4$

35) If $f(x)=\sqrt{x}$, and $g(x)=x-2$, then $(fg)(x)=$

$\boxed{A}$ $\sqrt{x}-2$ $\boxed{B}$ $\sqrt{x-2}$ $\boxed{C}$ $(x-2)\sqrt{x}$ $\boxed{D}$ $x-4$

36) If $f(x)=\sin 5x$, and $g(x)=x^2+3$, then $(f\circ g)(x)=$

$\boxed{A}$ $\sin 5x^2+3$ $\boxed{B}$ $\sin^2 5x+3$ $\boxed{C}$ $(x^2+3)\sin 5x$ $\boxed{D}$ $\sin 5(x^2+3)$

37) If $f(x)=\sin 5x$, and $g(x)=x^2+3$, then $(g\circ f)(x)=$

$\boxed{A}$ $\sin 5x^2+3$ $\boxed{B}$ $\sin^2 5x+3$ $\boxed{C}$ $(x^2+3)\sin 5x$ $\boxed{D}$ $\sin 5(x^2+3)$

38) If $f(x)=\sin 5x$, and $g(x)=x^2+3$, then $(fg)(x)=$

$\boxed{A}$ $\sin 5x^2+3$ $\boxed{B}$ $\sin^2 5x+3$ $\boxed{C}$ $(x^2+3)\sin 5x$ $\boxed{D}$ $\sin 5(x^2+3)$

39) If $f(x)=\sqrt{x}$, and $g(x)=\cos x$, then $(g\circ f)(x)=$

$\boxed{A}$ $\cos\sqrt{x}$ $\boxed{B}$ $\sqrt{\cos x}$ $\boxed{C}$ $\sqrt{x}\cos x$ $\boxed{D}$ $\cos x$

40) If $f(x)=x+\frac{1}{x}$, and $g(x)=1-x^2$, then $(f\circ g)(x)=$ $\boxed{A}$ $1+(x+\frac{1}{x})^2$ $\boxed{B}$ $(1-x^2)+\frac{1}{1-x^2}$ $\boxed{C}$ $1-(x+\frac{1}{x})^2$ $\boxed{D}$ $(x+\frac{1}{x})(1-x^2)$
41) If $f(x)=x+\frac{1}{x}$, and $g(x)=1-x^2$, then $(g\circ f)(x)=$ $\boxed{A}$ $1+(x+\frac{1}{x})^2$ $\boxed{B}$ $(1-x^2)+\frac{1}{1-x^2}$ $\boxed{C}$ $1-(x+\frac{1}{x})^2$ $\boxed{D}$ $(x+\frac{1}{x})(1-x^2)$
42) If $f(x)=x+\frac{1}{x}$, and $g(x)=1-x^2$, then $(fg)(x)=$ $\boxed{A}$ $1+(x+\frac{1}{x})^2$ $\boxed{B}$ $(1-x^2)+\frac{1}{1-x^2}$ $\boxed{C}$ $1-(x+\frac{1}{x})^2$ $\boxed{D}$ $(x+\frac{1}{x})(1-x^2)$
43) If the graph of the function $f(x)=x^2$ is shifted a distance 2 units upward, then the new graph represented the graph of the function is $\boxed{A}$ x^2+4x+4 $\boxed{B}$ x^2-4x+4 $\boxed{C}$ x^2+2 $\boxed{D}$ x^2-2
44) If the graph of the function $f(x)=x^2$ is shifted a distance 2 units downward, then the new graph represented the graph of the function is $\boxed{A}$ x^2+4x+4 $\boxed{B}$ x^2-4x+4 $\boxed{C}$ x^2+2 $\boxed{D}$ x^2-2
45) If the graph of the function $f(x)=x^2$ is shifted a distance 2 units to the right, then the new graph represented the graph of the function is $\boxed{A}$ x^2+4x+4 $\boxed{B}$ x^2-4x+4 $\boxed{C}$ x^2+2 $\boxed{D}$ x^2-2
46) If the graph of the function $f(x)=x^2$ is shifted a distance 2 units to the left, then the new graph represented the graph of the function is $\boxed{A}$ x^2+4x+4 $\boxed{B}$ x^2-4x+4 $\boxed{C}$ x^2+2 $\boxed{D}$ x^2-2
47) If the graph of the function $f(x)=\cos x$ is stretched vertically by a factor of 2, then the new graph represented the graph of the function is $\boxed{A}$ $\cos\frac{x}{2}$ $\boxed{B}$ $\cos 2x$ $\boxed{C}$ $2\cos x$ $\boxed{D}$ $\frac{1}{2}\cos x$
48) If the graph of the function $f(x)=\cos x$ is compressed vertically by a factor of $\frac{1}{2}$, then the new graph represented the graph of the function is $\boxed{A}$ $\cos\frac{x}{2}$ $\boxed{B}$ $\cos 2x$ $\boxed{C}$ $2\cos x$ $\boxed{D}$ $\frac{1}{2}\cos x$
49) If the graph of the function $f(x)=\cos x$ is compressed horizontally by a factor of 2, then the new graph represented the graph of the function is $\boxed{A}$ $\cos\frac{x}{2}$ $\boxed{B}$ $\cos 2x$ $\boxed{C}$ $2\cos x$ $\boxed{D}$ $\frac{1}{2}\cos x$

50) If the graph of the function $f(x)=\cos x$ is stretched horizontally by a factor of $\frac{1}{2}$, then the new graph represented the graph of the function is

$\boxed{A}$ $\cos\frac{x}{2}$ $\boxed{B}$ $\cos 2x$ $\boxed{C}$ $2\cos x$ $\boxed{D}$ $\frac{1}{2}\cos x$

51) The graph of the function $f(x)=\sqrt{x}$ is reflected about the $x-$axis if

$\boxed{A}$ $-\sqrt{x}$ $\boxed{B}$ $\sqrt{-x}$ $\boxed{C}$ x $\boxed{D}$ $-x$

52) The graph of the function $f(x)=\sqrt{x}$ is reflected about the $y-$axis if

$\boxed{A}$ $-\sqrt{x}$ $\boxed{B}$ $\sqrt{-x}$ $\boxed{C}$ x $\boxed{D}$ $-x$

53) If the graph of the function $f(x)=e^x$ is shifted a distance 2 units upward, then the new graph represented the graph of the function

$\boxed{A}$ e^{x+2} $\boxed{B}$ e^x+2 $\boxed{C}$ e^{x-2} $\boxed{D}$ e^x-2

54) If the graph of the function $f(x)=e^x$ is shifted a distance 2 units downward, then the new graph represented the graph of the function

$\boxed{A}$ e^{x+2} $\boxed{B}$ e^x+2 $\boxed{C}$ e^{x-2} $\boxed{D}$ e^x-2

55) If the graph of the function $f(x)=e^x$ is shifted a distance 2 units to the right, then the new graph represented the graph of the function

$\boxed{A}$ e^{x+2} $\boxed{B}$ e^x+2 $\boxed{C}$ e^{x-2} $\boxed{D}$ e^x-2

56) If the graph of the function $f(x)=e^x$ is shifted a distance 2 units to the left, then the new graph represented the graph of the function

$\boxed{A}$ e^{x+2} $\boxed{B}$ e^x+2 $\boxed{C}$ e^{x-2} $\boxed{D}$ e^x-2

57) $\frac{2\pi}{3}$ rad $=$

$\boxed{A}$ 120^0 $\boxed{B}$ 150^0 $\boxed{C}$ 270^0 $\boxed{D}$ 210^0

58) $\frac{5\pi}{6}$ rad $=$

$\boxed{A}$ 120^0 $\boxed{B}$ 150^0 $\boxed{C}$ 270^0 $\boxed{D}$ 210^0

59) $\frac{7\pi}{6}$ rad $=$

$\boxed{A}$ 120^0 $\boxed{B}$ 150^0 $\boxed{C}$ 270^0 $\boxed{D}$ 210^0

60) $\frac{3\pi}{2}$ rad $=$

$\boxed{A}$ 120^0 $\boxed{B}$ 150^0 $\boxed{C}$ 270^0 $\boxed{D}$ 210^0

61) $120^0=$

$\boxed{A}$ $\frac{2\pi}{3}$rad $\boxed{B}$ $\frac{3\pi}{2}$rad $\boxed{C}$ $\frac{5\pi}{6}$rad $\boxed{D}$ $\frac{5\pi}{12}$rad

62) $270^0 =$

$\boxed{A}$ $\frac{5\pi}{6}$ rad $\boxed{B}$ $\frac{3\pi}{2}$ rad $\boxed{C}$ $\frac{2\pi}{3}$ rad $\boxed{D}$ $\frac{5\pi}{12}$ rad

63) $\frac{5\pi}{12}$ rad $=$

$\boxed{A}$ 120^0 $\boxed{B}$ 150^0 $\boxed{C}$ 300^0 $\boxed{D}$ 75^0

64) $\frac{3\pi}{4}$ rad $=$

$\boxed{A}$ 35^0 $\boxed{B}$ 135^0 $\boxed{C}$ 235^0 $\boxed{D}$ 335^0

65) $150^0 =$

$\boxed{A}$ $\frac{5\pi}{6}$ rad $\boxed{B}$ $\frac{3\pi}{2}$ rad $\boxed{C}$ $\frac{2\pi}{3}$ rad $\boxed{D}$ $\frac{5\pi}{12}$ rad

66) $210^0 =$

$\boxed{A}$ $\frac{5\pi}{6}$ rad $\boxed{B}$ $\frac{3\pi}{2}$ rad $\boxed{C}$ $\frac{7\pi}{6}$ rad $\boxed{D}$ $\frac{5\pi}{12}$ rad

67) $\frac{1}{\sec x} =$

$\boxed{A}$ $\tan x$ $\boxed{B}$ $\csc x$ $\boxed{C}$ $\cos x$ $\boxed{D}$ $\sin x$

68) $\frac{1}{\csc x} =$

$\boxed{A}$ $\tan x$ $\boxed{B}$ $\sec x$ $\boxed{C}$ $\cos x$ $\boxed{D}$ $\sin x$

69) $\frac{1}{\cot x} =$

$\boxed{A}$ $\tan x$ $\boxed{B}$ $\csc x$ $\boxed{C}$ $\cos x$ $\boxed{D}$ $\sin x$

70) $\frac{\sin x}{\cos x} =$

$\boxed{A}$ $\tan x$ $\boxed{B}$ $\cot x$ $\boxed{C}$ $\sec x$ $\boxed{D}$ $\csc x$

71) $\frac{\cos x}{\sin x} =$

$\boxed{A}$ $\tan x$ $\boxed{B}$ $\cot x$ $\boxed{C}$ $\sec x$ $\boxed{D}$ $\csc x \ \cot x$

72) If $\cos(x) = \frac{3}{5}$, and $0 < x < \frac{\pi}{2}$, then $\cot(x) =$

$\boxed{A}$ $\frac{4}{3}$ $\boxed{B}$ $\frac{5}{3}$ $\boxed{C}$ $\frac{4}{5}$ $\boxed{D}$ $\frac{3}{4}$

73) If $\cos(x) = \frac{3}{5}$, and $0 < x < \frac{\pi}{2}$, then find $\tan(x) =$

$\boxed{A}$ $\frac{4}{3}$ $\boxed{B}$ $\frac{5}{3}$ $\boxed{C}$ $\frac{4}{5}$ $\boxed{D}$ $\frac{3}{4}$

74) If $\cos(x)=\frac{3}{5}$, and $0<x<\frac{\pi}{2}$, then $\sin(x)=$	
$\boxed{A}\ \frac{4}{3}$ $\boxed{B}\ \frac{5}{3}$ $\boxed{C}\ \frac{4}{5}$ $\boxed{D}\ \frac{3}{4}$	
75) If $\cos(x)=\frac{3}{5}$, and $0<x<\frac{\pi}{2}$, then $\csc(x)=$	
$\boxed{A}\ \frac{4}{3}$ $\boxed{B}\ \frac{5}{4}$ $\boxed{C}\ \frac{4}{5}$ $\boxed{D}\ \frac{3}{4}$	
76) $\sin\left(\frac{5\pi}{6}\right)=$	
$\boxed{A}\ \frac{1}{2}$ $\boxed{B}\ -\frac{\sqrt{3}}{2}$ $\boxed{C}\ -\frac{1}{\sqrt{3}}$ $\boxed{D}\ -\sqrt{3}$	
77) $\cos\left(\frac{5\pi}{6}\right)=$	
$\boxed{A}\ \frac{1}{2}$ $\boxed{B}\ -\frac{\sqrt{3}}{2}$ $\boxed{C}\ -\frac{1}{\sqrt{3}}$ $\boxed{D}\ -\sqrt{3}$	
78) $\tan\left(\frac{5\pi}{6}\right)=$	
$\boxed{A}\ \frac{1}{2}$ $\boxed{B}\ -\frac{\sqrt{3}}{2}$ $\boxed{C}\ -\frac{1}{\sqrt{3}}$ $\boxed{D}\ -\sqrt{3}$	
79) $\cot\left(\frac{5\pi}{6}\right)=$	
$\boxed{A}\ \frac{1}{2}$ $\boxed{B}\ -\frac{\sqrt{3}}{2}$ $\boxed{C}\ -\frac{1}{\sqrt{3}}$ $\boxed{D}\ -\sqrt{3}$	
80) If $\sin(x)=\frac{2}{3}$, and $0<x<\frac{\pi}{2}$, then $\sec(x)=$	
$\boxed{A}\ \frac{\sqrt{5}}{2}$ $\boxed{B}\ \frac{3}{\sqrt{5}}$ $\boxed{C}\ \frac{3}{2}$ $\boxed{D}\ \frac{2}{\sqrt{5}}$	
81) If $\sin(x)=\frac{2}{3}$, and $0<x<\frac{\pi}{2}$, then $\csc(x)=$	
$\boxed{A}\ \frac{\sqrt{5}}{2}$ $\boxed{B}\ \frac{3}{\sqrt{5}}$ $\boxed{C}\ \frac{3}{2}$ $\boxed{D}\ \frac{2}{\sqrt{5}}$	
82) If $\sin(x)=\frac{3}{4}$, and $0<x<\frac{\pi}{2}$, then $\cos(x)=$	
$\boxed{A}\ \frac{\sqrt{7}}{4}$ $\boxed{B}\ \frac{3}{\sqrt{7}}$ $\boxed{C}\ \frac{4}{\sqrt{7}}$ $\boxed{D}\ \frac{\sqrt{7}}{3}$	

83) If $\sin(x)=\frac{3}{4}$, and $0<x<\frac{\pi}{2}$, then $\cot(x)=$			
$\boxed{A}\ \frac{\sqrt{7}}{4}$	$\boxed{B}\ \frac{3}{\sqrt{7}}$	$\boxed{C}\ \frac{4}{\sqrt{7}}$	$\boxed{D}\ \frac{\sqrt{7}}{3}$
84) If $\csc(x)=-\frac{5}{3}$, and $\frac{3\pi}{2}<x<2\pi$, then $\cos(x)=$			
$\boxed{A}\ \frac{4}{5}$	$\boxed{B}\ -\frac{3}{4}$	$\boxed{C}\ \frac{5}{4}$	$\boxed{D}\ -\frac{4}{3}$
85) If $\csc(x)=-\frac{5}{3}$, and $\frac{3\pi}{2}<x<2\pi$, then $\sec(x)=$			
$\boxed{A}\ \frac{4}{5}$	$\boxed{B}\ -\frac{3}{4}$	$\boxed{C}\ \frac{5}{4}$	$\boxed{D}\ -\frac{4}{3}$
86) If $\csc(x)=-\frac{5}{3}$, and $\frac{3\pi}{2}<x<2\pi$, then $\cot(x)=$			
$\boxed{A}\ \frac{4}{5}$	$\boxed{B}\ -\frac{3}{4}$	$\boxed{C}\ \frac{5}{4}$	$\boxed{D}\ -\frac{4}{3}$
87) If $\csc(x)=-\frac{5}{3}$, and $\frac{3\pi}{2}<x<2\pi$, then $\tan(x)=$			
$\boxed{A}\ \frac{4}{5}$	$\boxed{B}\ -\frac{3}{4}$	$\boxed{C}\ \frac{5}{4}$	$\boxed{D}\ -\frac{4}{3}$
88) If $f(x)=\sin x$, then $D_f =$			
$\boxed{A}\ (-\infty,1]$	$\boxed{B}\ (-\infty,-1)$	$\boxed{C}\ \mathbb{R}=(-\infty,\infty)$	$\boxed{D}\ [-1,1]$
89) If $f(x)=\cos x$, then $D_f =$			
$\boxed{A}\ (-\infty,1]$	$\boxed{B}\ (-\infty,-1)$	$\boxed{C}\ \mathbb{R}=(-\infty,\infty)$	$\boxed{D}\ [-1,1]$
90) If $f(x)=\sin x$, then $R_f =$			
$\boxed{A}\ (-1,0]$	$\boxed{B}\ (0,1)$	$\boxed{C}\ \mathbb{R}=(-\infty,\infty)$	$\boxed{D}\ [-1,1]$
91) If $f(x)=\cos x$, then $R_f =$			
$\boxed{A}\ (-1,0]$	$\boxed{B}\ (0,1)$	$\boxed{C}\ \mathbb{R}=(-\infty,\infty)$	$\boxed{D}\ [-1,1]$