

$$1.7 \text{ c) } f(x) = \sin(x) \quad x \in [2\pi, \frac{5\pi}{2}]$$

$$D_f = [2\pi, \frac{5\pi}{2}]$$
$$R_f = [0, 1]$$

$$g(x) : [0, 1] \rightarrow [2\pi, \frac{5\pi}{2}]$$

$$x - 2\pi \in [0, \frac{\pi}{2}] \subset D_{\arcsin}$$

$$y = \sin(x) = \sin(x - 2\pi)$$

$$\arcsin(y) = \arcsin(\sin(x - 2\pi))$$

$$x = \arcsin(y) + 2\pi = f^{-1}(y)$$

$$d) \quad f(x) = \cos(x), \quad x \in [-3\pi, -2\pi]$$

$$R_{\arccos} = [0, \pi] \quad x + 3\pi \in [0, \pi]$$

$$\cos(x + 3\pi) = \cos(x + \pi) = -\cos(x)$$

$$y = \cos(x) = -\cos(x + 3\pi)$$

$$\arccos(-y) = \arccos(\cos(x + 3\pi))$$

$$x = \arccos(-y) - 3\pi = f^{-1}(y)$$

$$D_{f^{-1}} = [-1, 1] \quad R_{f^{-1}} = [-3\pi, -2\pi]$$