

25.1

$$\textcircled{9} \quad f(x) = 9\sqrt{x} \\ = 9x^{1/2}$$

An antiderivative is

$$9 \left(\frac{2}{3} x^{3/2} \right) \\ = 6x^{3/2}$$

$$\textcircled{11} \quad f(x) = \frac{1}{x^2} \\ = x^{-2}$$

An antiderivative is

$$-x^{-1} \\ = -\frac{1}{x}$$

$$\textcircled{13} \quad f(x) = \frac{5}{2} x^{3/2}$$

An antiderivative is

$$\frac{5}{2} \left(\frac{2}{5} x^{5/2} \right) \\ = x^{5/2}$$

(15) $f(t) = 6t^3 + 12$

An antiderivative is $6\left(\frac{t^4}{4}\right) + 12t$
 $= \frac{3}{2}t^4 + 12t$

(19) $f(x) = 2\sqrt{x} + 3$
 $= 2x^{1/2} + 3$

An antiderivative is $2\left(\frac{2}{3}x^{3/2}\right) + 3x$
 $= \frac{4}{3}x^{3/2} + 3x$

(21) $f(x) = -\frac{7}{x^6}$
 $= -7x^{-6}$

An antiderivative is $-7\left(-\frac{1}{5}x^{-5}\right)$
 $= \frac{7}{5}x^{-5}$