

$$1) f(x) = 2\sqrt{x} - \sqrt[3]{x} \Rightarrow F(x) = 2 \frac{x^{\frac{1}{2}+1}}{\frac{1}{2}+1} - \frac{x^{\frac{1}{3}+1}}{\frac{1}{3}+1} + c = 2 \frac{x^{\frac{3}{2}}}{\frac{3}{2}} - \frac{x^{\frac{4}{3}}}{\frac{4}{3}} + c = 4 \frac{\sqrt{x^3}}{3} - 3 \frac{\sqrt[3]{x^4}}{4} + c$$

$$2) f(x) = \sqrt[4]{x} - \frac{1}{x^2} \Rightarrow F(x) = \frac{x^{\frac{1}{4}+1}}{\frac{1}{4}+1} + \frac{1}{x} + c = \frac{x^{\frac{5}{4}}}{\frac{5}{4}} + \frac{1}{x} + c = \frac{4\sqrt[4]{x^5}}{5} + \frac{1}{x} + c$$

$$3) f(x) = \frac{1}{x} - \frac{4}{x^3} + \frac{1}{\sqrt{x}} \Rightarrow F(x) = \ln|x| - \frac{4}{-2} x^{-2} + 2\sqrt{x} + c = \ln|x| + \frac{2}{x^2} + 2\sqrt{x} + c$$

$$4) f(x) = \frac{2x^3 - 5x + 1}{x^2} \Rightarrow F(x) = \overset{f(x)=2x-\frac{5}{x}+\frac{1}{x^2}}{x^2 - 5\ln|x| - \frac{1}{x} + c}$$

$$5) f(x) = \frac{x^2 - 3x + 2}{x^2} \Rightarrow F(x) = \overset{f(x)=1-\frac{3}{x}+\frac{2}{x^2}}{x - 3\ln|x| - \frac{2}{x} + c}$$

$$6) f(x) = \frac{\alpha x^2 + \beta x + \gamma}{x^2} \Rightarrow F(x) = \overset{f(x)=\alpha+\frac{\beta}{x}+\frac{\gamma}{x^2}}{\alpha x + \beta \ln|x| - \frac{\gamma}{x} + c}$$

$$7) f(x) = \frac{\sqrt{x} - 3}{x} \Rightarrow F(x) = \overset{f(x)=x^{\frac{1}{2}-1}-\frac{3}{x}}{\frac{1}{\frac{1}{2}} x^{\frac{1}{2}} - 3\ln|x| + c = 2\sqrt{x} - 3\ln|x| + c}$$

$$8) f(x) = \frac{x - 2\sqrt{x} + 1}{x} \Rightarrow F(x) = \overset{f(x)=1-\frac{2}{\sqrt{x}}+\frac{1}{x}}{x - 4\sqrt{x} + \ln|x| + c}$$

$$9) f(x) = \frac{(x - \sqrt{x})(x - \sqrt{x} + 1)}{x^2 \sqrt{x}} \Rightarrow F(x) =$$

$$\overset{f(x)=\frac{x^2-x\sqrt{x}+x-x\sqrt{x}+x-\sqrt{x}}{x^2\sqrt{x}}=\frac{x^2-2x\sqrt{x}+2x-\sqrt{x}}{x^2\sqrt{x}}=\frac{1}{\sqrt{x}}-\frac{2}{x}+\frac{2}{x\sqrt{x}}-\frac{1}{x^2}}{2\sqrt{x} - 2\ln|x| + 2\frac{x^{-\frac{1}{2}}}{-\frac{1}{2}} + \frac{1}{x} + c}$$

$$10) f(x) = \frac{\sqrt[3]{x} + \sqrt{x} - 1}{x} \Rightarrow F(x) = \overset{f(x)=x^{\frac{2}{3}-1}+x^{\frac{1}{2}-1}-\frac{1}{x}}{\frac{x^{\frac{1}{3}}}{\frac{1}{3}} + \frac{x^{\frac{1}{2}}}{\frac{1}{2}} - \ln|x| + c = 3x^{\frac{1}{3}} + 2x^{\frac{1}{2}} - \ln|x| + c}$$

$$11) \frac{xe^x - 2}{x} \Rightarrow F(x) = \overset{f(x)=e^x-\frac{2}{x}}{e^x - 2\ln|x| + c}$$

$$12) \quad f(x) = \eta\mu(\alpha x + \beta) - \sigma\nu(\alpha x + \beta) \Rightarrow F(x) = -\frac{\sigma\nu(\alpha x + \beta)}{\alpha} - \frac{\eta\mu(\alpha x + \beta)}{\alpha} + c$$

$$13) \quad f(x) = 3\eta\mu 2x - 2\sigma\nu 3x \Rightarrow F(x) = -\frac{3\sigma\nu 2x}{2} - \frac{2\eta\mu 3x}{3} + c$$

$$14) \quad f(x) = \eta\mu 3x - \sigma\nu \frac{x}{2} \Rightarrow F(x) = -\frac{\sigma\nu 3x}{3} - \frac{\eta\mu \frac{x}{2}}{\frac{1}{2}} + c = -\frac{\sigma\nu 3x}{3} - 2\eta\mu \frac{x}{2} + c$$

$$15) \quad f(x) = \frac{1}{2}(e^x + e^{-x}) \Rightarrow F(x) = \frac{1}{2}(e^x - e^{-x})$$

$$16) \quad f(x) = 3^{2x} - e^{2x-3} \Rightarrow F(x) = \frac{3^{2x}}{2\ln 3} - \frac{e^{2x-3}}{2} + c$$

$$17) \quad f(x) = e^{3x} - 5e^{-x} + 1 \Rightarrow F(x) = \frac{e^{3x}}{3} + 5e^{-x} + x + c$$

$$18) \quad f(x) = e^{2x+1} - \eta\mu \frac{x}{3} \Rightarrow F(x) = \frac{e^{2x+1}}{2} + \frac{\sigma\nu \frac{x}{3}}{\frac{1}{3}} + c = \frac{e^{2x+1}}{2} + 3\sigma\nu \frac{x}{3} + c$$

$$19) \quad f(x) = \eta\mu(3x-1) + e^{2x+1} \Rightarrow F(x) = \frac{-\sigma\nu(3x-1)}{3} + \frac{e^{2x+1}}{2} + c$$

$$20) \quad f(x) = \frac{3}{\sigma\nu^2 \frac{x}{2}} - \frac{4}{\eta\mu^2 2x} \Rightarrow F(x) = \frac{3\varepsilon\varphi \frac{x}{2}}{\frac{1}{2}} + \frac{4\sigma\varphi 2x}{2} + c = 6\varepsilon\varphi \frac{x}{2} + 2\sigma\varphi 2x + c$$