

$$952. y = \operatorname{arctg} (x + \sqrt{1+x^2}).$$

$$953. y = \arcsin \left(\frac{\sin a \sin x}{1 - \cos a \cos x} \right).$$

$$954. y = \frac{1}{4\sqrt{3}} \ln \frac{\sqrt{x^2+2} - x\sqrt{3}}{\sqrt{x^2+2} + x\sqrt{3}} + \\ + \frac{1}{2} \operatorname{arctg} \frac{\sqrt{x^2+2}}{x}.$$

$$955. y = \frac{1}{2\sqrt{2}} \operatorname{arctg} \frac{x\sqrt{2}}{\sqrt{1+x^4}} - \\ - \frac{1}{4\sqrt{2}} \ln \frac{\sqrt{1+x^4} - x\sqrt{2}}{\sqrt{1+x^4} + x\sqrt{2}}.$$

$$956. y = \frac{x\sqrt{1-x^2}}{1+x^2} - \frac{3}{\sqrt{2}} \operatorname{arctg} \frac{x\sqrt{2}}{\sqrt{1-x^2}}.$$

$$957. y = \arccos (\sin x^2 - \cos x^2).$$

$$958. y = \arcsin (\sin x^2) + \arccos (\cos x^2).$$

$$959. y = e^{m \arcsin x} [\cos (m \arcsin x) + \sin (m \arcsin x)].$$

$$960. y = \operatorname{arctg} e^x - \ln \sqrt{\frac{e^{2x}}{e^{2x}+1}}.$$

$$960.1. y = \sqrt{1 + \sqrt[3]{1 + \sqrt[4]{1 + x^4}}}.$$

$$960.2. y = \operatorname{arctg} \frac{1}{\sqrt{\operatorname{ctg} \frac{1}{x^2}}}.$$

$$960.3. y = \ln^2 \left(\sec 2 \sqrt[3]{x} \right).$$

$$961. y = x + x^x + x^{x^x} \quad (x > 0).$$

$$962. y = x^{x^a} + x^{a^x} + a^{x^x} \quad (a > 0, x > 0).$$

$$963. y = \sqrt[x]{x} \quad (x > 0).$$

$$964. y = (\sin x)^{\cos x} + (\cos x)^{\sin x}.$$

$$965. y = (\ln x)^x : x^{\ln x}.$$

$$965.1. y = \left[\frac{\arcsin (\sin^2 x)}{\arccos (\cos^2 x)} \right]^{\operatorname{arctg}^2 x}.$$