

## เฉลยแบบฝึกหัด 11.4

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$$1. \frac{2}{\sqrt{4-x^2}} e^{2\arccos \frac{x}{2}}$$

$$2. \frac{1}{x|\ln x|\sqrt{(\ln x)^2-1}} - \frac{1}{x}$$

$$3. -\sin(\arcsin^2 x) \frac{2\arcsin x}{\sqrt{1-x^2}}$$

$$4. \frac{1}{1+x} \cdot \frac{1}{2\sqrt{x}}$$

$$5. \frac{2\arcsin x}{\sqrt{1-x^2}} - \frac{2\arccos x}{\sqrt{1-x^2}}$$

$$6. \frac{4}{x^2+4}$$

$$7. 2 \tan(\arccos \sqrt{x} + \ln x) \sec^2(\arccos \sqrt{x} + \ln x) \left( \frac{-1}{\sqrt{1-x}} \cdot \frac{1}{2\sqrt{x}} + \frac{1}{x} \right)$$

$$8. \frac{-\cos(\sqrt{x})}{2\sqrt{x-x^2}} - \frac{\sin(\sqrt{x}) \arccos(\sqrt{x})}{2\sqrt{x}}$$

$$9. \frac{e^x}{1+e^{2x}}$$

$$10. \frac{(2x \ln 3) 3^{\arcsin x^2}}{\sqrt{1-x^4}}$$

$$11. \frac{2x}{\sqrt{1-x^4}}$$

$$12. \frac{-e^{-x}}{\sqrt{e^{-2x}-1}} - e^{-x} \arccos(e^{-x})$$

$$13. \frac{-2x}{(x^2+1)\sqrt{(x^2+1)^2-1}}$$

$$14. \cos(x^{\arccos(x)})x^{\arccos(x)}\left(\frac{-\ln(x)}{\sqrt{(1-x^2)}} + \frac{\arccos(x)}{x}\right)$$

$$15. \frac{(\cos x)(\arcsin x)}{2\sqrt{\sin x}} + \frac{1}{(\sqrt{\sin x})(\sqrt{1-x^2})}$$

$$16. \left(\frac{-1}{\arcsin^2 x}\right)\left(\frac{1}{|x|\sqrt{x^2-1}}\right)$$

$$17. \frac{-2x}{(\arccos(x^2+1))(\sqrt{1-(x^2+1)^2})}$$

$$18. \frac{-2x}{(x^2+1)\sqrt{1-(\ln(x^2+1))^2}}$$

$$19. \frac{1}{e^{x+1}}\left(\frac{\cos \sqrt{x}}{2\sqrt{x}} - \sin \sqrt{x}\right)$$

$$20. 3^{x^2}\left(\frac{1}{\sqrt{x^2+2x+2}} + 2x \cdot \arctan(x+1)\right)$$