

DERIVATIVES - TRIG FUNCTIONS

$$1. f(x) = 4(\cos x)$$

$$3. f(x) = x^3(\sin x)$$

$$5. f(x) = \frac{\sin x}{x}$$

$$7. f(x) = 2x(\cos x) + x^2(\sin x)$$

$$9. f(x) = 3x^2(\sin x) - x^3(\cos x)$$

$$11. f(x) = \frac{(1 - \cos x)}{(1 + \cos x)}$$

$$13. f(x) = \frac{(x + \sin x)}{(1 - \cos x)}$$

$$15. f(x) = \sin(5x + 2)$$

$$17. f(x) = \cos(2x^2 - 3x + 1)$$

$$19. f(x) = \cos^4(3x)$$

$$21. f(x) = \sin^2 x + \sin x^2$$

$$23. f(x) = \frac{\sin 3x}{\sin 3x + \cos 3x}$$

$$25. f(x) = (\sin^3 x)(\cos^4 x)$$

$$27. f(x) = (\cos x^{1/3} - \sin x^{1/3})^3$$

$$29. f(x) = \cos(\ln x)$$

$$31. f(x) = (\ln \sin x)^3$$

$$33. f(x) = (\sin x) \cos x$$

$$35. f(x) = \csc(x^2 + 4)$$

$$37. f(x) = e^{-3x} \tan x^{(1/2)}$$

$$39. f(x) = \tan^3 6x$$

$$2. f(x) = 3x(\sin x)$$

$$4. f(x) = x - x^2(\cos x)$$

$$6. f(x) = \frac{x^2}{\cos x}$$

$$8. f(x) = \sin x \cot x$$

$$10. f(x) = (\sin x - \cos x)^2$$

$$12. f(x) = \frac{\cos x}{(1 - \sin x)}$$

$$14. f(x) = (\sin^2 x + \cos^2 x)^3$$

$$16. f(x) = \cos(4 - 3t)$$

$$18. f(x) = \sin(2x^5)$$

$$20. f(x) = \sin^3(x^4)$$

$$22. f(x) = (x^4 + \cos^4 x)^4$$

$$24. f(x) = \frac{\sin(3x + 4)}{(3x + 4)}$$

$$26. f(x) = \sin(\cos^5 x)$$

$$28. f(x) = \ln(\cos x)$$

$$30. f(x) = \ln(x^3 \sin x)$$

$$32. f(x) = x \sin x$$

$$34. f(x) = \tan(8x + 3)$$

$$36. f(x) = \tan^2 x \sec^3 x$$

$$38. f(x) = \frac{(\sec^2 x)}{(\tan 2x + 1)}$$

$$40. f(x) = \ln \ln \sec^2 x$$