Mathé 42S – Exercice # 13A

A. Trouve la dérivée des fonctions suivantes

1. $y = 3sinx$ 2. $y = -8sinx$ 3. $y = 5cosx$ 4. $y = -12cosx$

5. $y = 6sinx - 2cosx$ 6. $y = 3cosx + 4sinx$ 7. $y = sin5x$ 8. $y = 7sin2x$

9. $y = -6sin9x$ 10. $y = cos8x$ 11. $y = 5cos4x$ 12. $y = -11cos2x$

13. $y = sin(5x^2 + 1)$ 14. $y = 3\sin(5x + 3)$ 15. $y = 2\sin(8x - 5) + 6\cos(2x + 1)$

16. $y = tanx$ 17. a) $y = sin^2x$ b) $y = cos^3x$

Réponses :

1. $y' = 3cosx$ 2. $y' = -8cosx$ 3. $y' = -5sinx$ 4. $y' = 12sinx$ 5. $y' = 6cosx + 2sinx$

6. $y' = -3sinx + 4cosx$ 7. $y' = 5cos5x$ 8. $y' = 14cos2x$ 9. $y' = -54cos9x$

10. $y' = -8sin8x$ 11. $y' = -20sin4x$ 12. $y' = 22sin2x$ 13. $y' = 10xcos(5x^2 + 1)$

14. $y' = 15cos(5x + 3)$ 15. $y' = 16\cos(8x - 5) - 12\sin(2x + 1)$

16. $y' = sec^2x$

17. a) $y' = 2sinxcosx$ ou $sin2x$ b) $y' = -3sinxcos^2x$