Derivative by Power Rule and Properties

Use derivative formulas to differentiate the following.

1. $f(x) = 8$

2. $f(x) = 12$

3. $f(x) = 4x + 3$

4. $f(x) = 3x + 4$

5. $f(x) = 2x^2 - 3$

6. $f(x) = 3x^2 + 4$

7. $f(x) = 5x^3 + x$

8. $f(x) = 7x^3 - x$

9. $f(x) = 4x^3 - 2x^2 + x$

10. $f(x) = 5x^3 - 3x^2 + x$

11. $f(x) = 7x^4 - 5x^2 + 3x - 8$

12. $f(x) = 4x^4 - 2x^2 + 5x + 7$

13. $f(x) = \sqrt{x} + 2x$

14. $f(x) = \sqrt{x} + 4x$

15. $f(x) = \sqrt[3]{x} - 2x + 7$

16. $f(x) = \sqrt[3]{x} - 5x + 3$

17. $f(x) = \sqrt[3]{x^2} + 7x - 3$

18. $f(x) = \sqrt[3]{x^2} + 5x - 7$

19. $f(x) = x^{2/3} + x^{-2}$

20. $f(x) = x^{2/5} + x^{-3}$

21. $f(x) = 5x^{-4} + 4x$

22. $f(x) = 2x^{-4} + 3x$

23. $f(x) = 5x^{-3} + 4x$

24. $f(x) = 6x^{-3} + 5x$

25. $f(x) = 5x^{2/5} - 12x^3 + 6$

26. $f(x) = 4x^{3/4} - 6x^3 + 5$

27. $f(x) = -\frac{1}{2}x^{1/2} + \frac{1}{\sqrt{x}} - 3$

28. $f(x) = -\frac{1}{3}x^{1/3} + \frac{1}{\sqrt[3]{x}} - 3$

29. $f(x) = \frac{1}{x} + \frac{2}{x^2} - \frac{3}{x^3}$

30. $f(x) = \frac{4}{x} + \frac{3}{x^2} - \frac{2}{x^3}$

31. $f(x) = \frac{7}{\sqrt{x}} + \frac{3}{\sqrt[3]{x}} - 2$

32. $f(x) = \frac{5}{\sqrt{x}} + \frac{2}{\sqrt[3]{x}} - 6$

33. $f(x) = \sqrt{x} - \frac{2}{\sqrt{x}} - 8$

34. $f(x) = 2\sqrt{x} - \frac{1}{\sqrt{x}} - 5$

35. $f(x) = 4 - x + 3x^2 - 4x^7$

36. $f(x) = 6 - 2x + x^2 - 5x^4$

37. $f(x) = 3 + 2x - x^2 + 5x^4$

38. $f(x) = 5 - x + 2x^3 - 3x^7$

39. $f(x) = x\sqrt{x} - 4x$

40. $f(x) = x\sqrt{x} + 6x$