Derivative Function by Definition

Use the **definition of derivative** to determine the derivative function for the following.

1. $f(x) = 4$
2. $f(x) = 7$
3. $f(x) = 5x - 2$
4. $f(x) = 2x - 5$
5. $f(x) = x^2 + x - 5$
6. $f(x) = x^2 + x + 7$
7. $f(x) = 2 - 3x^2$
8. $f(x) = 3 + 4x^2$
9. $f(x) = x^3 + 2x$
10. $f(x) = x^3 + 5x$
11. $f(x) = \sqrt{x - 4}$
12. $f(x) = \sqrt{x + 3}$
13. $f(x) = \frac{5}{x}$
14. $f(x) = \frac{3}{x}$
15. $f(x) = \frac{3}{x^2}$
16. $f(x) = \frac{5}{x^2}$
17. $f(x) = \frac{1}{\sqrt{2x+1}}$
18. $f(x) = \frac{1}{\sqrt{3x+1}}$
19. $f(x) = 4x - \sqrt{x}$

20. $f(x) = 4x - 3\sqrt{x}$

21. $f(x) = \frac{2x}{x+4}$

22. $f(x) = \frac{3x}{x+2}$

23. $f(x) = 2x^3 + x - 1$

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