

| Functia | Derivata (raspuns) |
|-----------------------------------|---|
| 1. $f(x) = 4x^3$ | $f'(x) = 12x^2$ |
| 2. $g(x) = 6x^2 - x^4$ | $g'(x) = 12x - 4x^3$ |
| 3. $y = x^3 + x^2 + x + 1$ | $y' = 3x^2 + 2x + 1$ |
| 4. $y = 1 - x^3$ | $y' = -3x^2$ |
| 5. $f(x) = \sqrt[3]{x^2}$ | $f'(x) = \frac{2}{3}x^{-1/3}$ |
| 6. $y = \sqrt[7]{x^5} + \sqrt{x}$ | $y' = \frac{5}{7}x^{-2/7} + \frac{1}{2}x^{-1/2}$ |
| 7. $g(x) = 8\sqrt[4]{x^3}$ | $g'(x) = 6x^{-1/4}$ |
| 8. $f(x) = 3 + 5\sqrt[3]{x}$ | $f'(x) = \frac{5}{3}x^{-2/3}$ |
| 9. $y = 4x^2 - 16\sqrt[4]{x^2}$ | $y' = 8x - 8x^{-1/2}$ |
| 10. $f(x) = x^9 + \sqrt{x}$ | $f'(x) = 9x^8 + \frac{1}{2}x^{-\frac{1}{2}} = 9x^8 + \frac{1}{2\sqrt{x}}$ |