In Problems 1-8, divide using long division

1. $x + 8$	2. $x^2 + 5x - 1$
3. $2x^2 + 4x - 1$	4. $7x + 27 + \dfrac{136}{x - 5}$
5. $5x^2 + 6x + 14 + \dfrac{12}{x - 1}$	6. $x^3 + 2x^2 + 6x + 18 + \dfrac{56}{x - 3}$
7. $2x - 6 + \dfrac{17x - 35}{x^2 + x - 5}$	8. $9x + \dfrac{-x^2 + 9x + 2}{x^4 - 1}$

In Problems 9-16, divide using synthetic division

9. $3x - 1$	10. $5x - 11 + \dfrac{20}{x + 2}$
11. $x^2 - 8x + 9 + \dfrac{-11}{x + 1}$	12. $x^3 + 2x^2 + 3x + 6 + \dfrac{15}{x - 2}$
13. $2x^3 - 5x^2 + 11x - 15 + \dfrac{30}{x + 2}$	14. $x^5 + x^4 + x^3 + x^2 + 3$
15. $x^3 + 2x^2 + 4x + 8$	16. $3x^4 + 5x^3 + 12x^2 + 20x + 41 + \dfrac{80}{x - 2}$

In Problems 17-20, use synthetic division and the Remainder Theorem to find the indicated function value

17. -24	18. 88
19. -7	20. 62

21. x = 4, -3, 2

22. x = -5, -6, 3

23. x=1/3, 1, 3