

Chapter 7B Review – Answers

1. $(x-5)(x-1)$ 2. $(x-5)(x+5)$ 3. $(2x+9)(2x+3)$ 4. $(2x^2-1)(x-2)(x+2)$

5. $(2x-1)(x-7)$ 6. $4x^2(x-4)$ 7. $2x(x+5)(x-3)$ 8. $(9+4y^2)(3-2y)(3+2y)$

9. $(5x-3)(x-4)$ 10. $x=1$ 11. $x=3, -3$ 12. $x=0, \frac{5}{13}$

13. $3x^3 - x^2 + 16x + 4$ 14. $x^2 + 12x + 39 + \frac{8}{x-2}$ 15. $2x^2 - 9x + 9$ 16. Yes

17. No, Rem = -5 18. No, Rem = 284 19. $f(x) = \frac{2}{3}x(x+2)^2(x-1)^3$

20. $g(x) = -\frac{4}{5}(x+1)(x-3)(x-4)$ 21. $h(x) = 5(x+2)(x-7)(x-10)$

22. $j(x) = \frac{1}{5}(2x-3)(x-3)^2(x+1)(x+5)^3$ 23. $f(x) = -2x^3 + 4x^2 + 38x - 40$

24. $g(x) = \frac{1}{2}x^3 - 3x^2 - 8x + 48$ 25. $h(x) = 6x^3 + 11x^2 - 31x + 14$ 26. $j(x) = 25x^3 + 65x^2 - 29x + 3$

27. D: 6 LC: -6

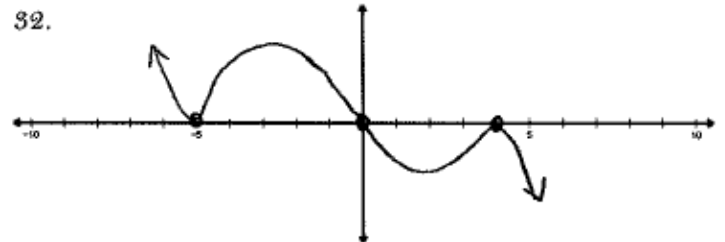
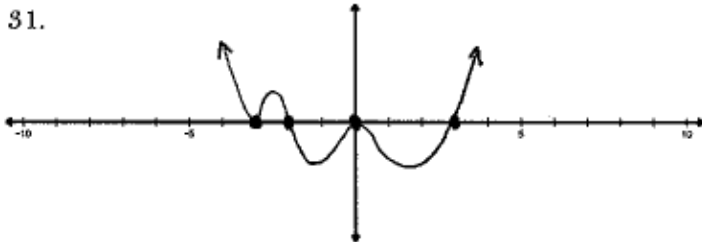
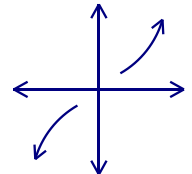
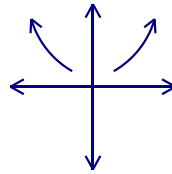
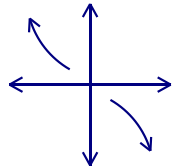
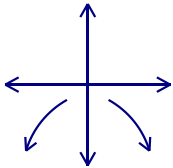
28. D: 7 LC: -1

29. D: 12 LC: 14

30. D: 11 LC: 4

Roots: $x = 0, \frac{1}{2}, -4, \frac{5}{3}$

Roots: $x = 4, -10, 5$



33. 8 34. $\frac{31}{16}$ 35. $\frac{11}{3}$ 36. $x^5 - 15x^4 + 90x^3 - 270x^2 + 405x - 243$

37. $1296x^4 + 864x^3 + 216x^2 + 24x + 1$ 38. $8x^3 + 60x^2y + 150xy^2 + 125y^3$