

ANSWERS**Algebra 1 Chapter 9 Review****Spring 2016**

1. a) Linear b) binomial 2. a) Constant b) Monomial
3. a) Cubic b) Monomial 4. a) Quadratic b) Trinomial
5. a) degree = 5 b) degree = 6

6. $-7k^5 + 15k^3 + 13k^2 + k - 8$

Factor each using GCF.

7. $H(14H^2 - 23)$

8. $6c^2(7c^3 + 1)$

9. $16m^4(3m^2 - 2)$

10. $8c^4d^3g(12cd^4 + 6c^2g - 7d^5g^4)$

Expand each. For polynomials with one variable write the answer in standard form.

11. $35m^7 - 21m^5$

12. $32h^5j^4k - 36h^2j^7k^6$

13. $g^2 + 13g + 42$

14. $n^2 - 13n + 40$

15. $w^2 - 5w - 66$

16. $8a^2 + 2a - 21$

17. $8c^4 - 6c^3 + 20c - 15$

18. $R^2 + 18R - 40$

19. $9P^4 - 16Q^2$

20. $3y^3 - 28y^2 + 34y - 16$

21. $b^2 + 10b + 25$

22. $36v^2 - 84v + 49$

Factor each completely. Always look to factor out with GCF first, **if possible**.

22. $(6a + 1)(2a - 3)$

23. $(M + 3)(3M - 2)$

24. $(2N + 5)(5N + 2)$

25. $(4Q - 1)(Q - 6)$

26. $4X(3X + 2)(2X + 1)$

27. $C^2(2C + 3)(5C + 2)$

28. $2A(A + 6)(2A + 7)$

29. $(w - 6)(w - 8)$

30. $(b + 12)(b - 5)$

31. $(3c - 5)(3c + 5)$

32. $55m(m - 6)(m + 6)$

33. $(d + 8)^2$

34. $2R(R - 4)^2$

35. $(g - 3h)(g + 5h)$

36. $(10Q^3 - 9w^2)(10Q^3 + 9w^2)$

37. $(k - 17)(k + 17)$

38. $(c + 3)(c - 11)$

39. $(2d - 5)^2$

40. $3c(2c - 7)(2c + 7)$

41. $(2w - 3x)(3w + 4x)$

42. $(k - 2)(5k^2 + 6)$

43. $(3m^2 - 2)(2m^3 + 7)$

44. $(2g + 5)(g + 4)(g - 4)$