

## Choosing a Factoring Method (ALG.FAC.07)

Factor each expression completely.

1.  $5a^3 - 30a^2 + 7a - 42$

2.  $b^2 + 5b + 4$

3.  $3c^2 - c - 2$

4.  $d^2 - 16$

5.  $e^3 - 5e^2 + 4e - 20$

6.  $2f^4 - 10f^3 - 28f^2$

7.  $3g^3 - 27g$

8.  $10h^2 - 21h - 10$

9.  $j^4 - 81$

10.  $k^3 + 9k^2 + 18k$

11.  $x^2(2x - 1) + 6(2x - 1)$

12.  $3n^5 + 12n^4 - 12n^3 - 48n^2$

13.  $4p^2 + 12p + 9$

14.  $t^2 - t - 30$

15.  $4u^2 + 2u - 20$

16.  $30v^4 + 20v^3 - 12v^2 - 8v$

17.  $4w^4 - 4$

18.  $21x^2 + 58x + 21$

19.  $y^2 - 17y + 70$

20.  $a^2 + 3a - 4$

21.  $12b^2 + 32b - 35$

22.  $4c^3 - 12c^2 - c + 3$

23.  $4 - 25d^2$

24.  $7e^2 - 18e + 8$

25.  $9x^4y - 4x^2y^3$

26.  $5f^3 + 10f^2 + 5f$

27.  $5h^2 - 7h - 6$

28.  $36j^2 - 12j + 1$

29.  $x^3 - 5x^2y + 2xy - 10y^2$

30.  $k^2 - 6k - 7$

31.  $15m^2 - 10m + 3mn - 2n$

32.  $3n^2 - 48$

33.  $2p^2 + 4p + 2$

34.  $3t^3 - 3t$

35.  $4u^2 - 60u + 225$

36.  $49b^5 - b$

37.  $f^2 - 10f - 12f + 120$

38.  $x^2 - 2x - 24$

39.  $3y^2 - 10y + 8$

40.  $2a^2 - 12ab - 7ab + 42b^2$

41.  $c^2 - 20c + 19$

43.  $14y^2 - 2yz - 7y + z$

45.  $w^8 + 5w^5 - 4w^4 - 20w$

47.  $-f^2 + 15f - 54$

49.  $v^2 + 27vw + 72w^2$

51.  $20b^2 - b - 1$

53.  $6y^2 + 5y + 1$

55.  $9m^2 - 42m + 49$

57.  $3x^2 - 9x - 12$

59.  $2d^2 + 16d + 32$

61.  $5p^2 - 20$

63.  $x^2y + 2xy - 6xy - 12y$

65.  $12n^2 + 4n - 16$

67.  $12a^2 + 36a + 27$

69.  $5x^2 - xy + 20xy - 4y^2$

71.  $-4m^2 + 9m - 5$

73.  $64 - 25n^8$

75.  $t^3 - 5t^2 - 36t$

77.  $n^2 + 3n - 40$

79.  $6h^2 - 29h - 5$

42.  $3w^2 - 19w - 72$

44.  $4r^3 - 20r^2 + 25r$

46.  $y^2 - 12y - 160$

48.  $g^4 - 16$

50.  $36 - 13x + x^2$

52.  $6c^2 - c - 15$

54.  $15 - 41d + 14d^2$

56.  $4t^2 - 24t + 36$

58.  $50y^2 - 10y - 12$

60.  $3x^3 - 9x^2 - 12x + 36$

62.  $3ab - 6a + 9b - 18$

64.  $2x^2y - 18y$

66.  $2rs^2 - 10rs - 48r$

68.  $8y^2 - 23y - 3$

70.  $k^2 + 11k + 18$

72.  $9g^2 - 12g + 4$

74.  $8g^2 - 4g - 2g + 1$

76.  $4a^2 - 16ab + 15b^2$

78.  $-w^3 + 17w^2 - 72w$

80.  $8h(h - 1) - 3(h - 1)$