

## Algebra 1B Homework Check (8-2)

(Please attach homework to this sheet and fill out the questions below.)

**Pg. 535: 27-35. 37-51. 55-58**

Factor each polynomial. Check your answer.

27.  $9y^2 + 45y$

28.  $36d^3 + 24$

29.  $-14x^4 + 5x^2$

30.  $-15f - 10f^2$

31.  $-4d^4 + d^3 - 3d^2$

32.  $14x^3 + 63x^2 - 7x$

33.  $21c^2 + 14c$

34.  $33d^3 + 22d + 11$

35.  $-5g^3 - 15g^2$

Factor each expression.

37.  $6a(a - 2) - 5b(b + 4)$

38.  $-4x(x + 2) + 9(x + 2)$

39.  $6y(y - 7) + (y - 7)$

40.  $a(x - 3) + 2b(x - 3)$

41.  $-3(2 + b) + 4b(b + 2)$

42.  $5(3x - 2) + x(3x - 2)$

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Factor each polynomial by grouping. Check your answer.

43.  $2a^3 - 8a^2 + 3a - 12$

44.  $x^3 + 3x^2 + 5x + 15$

45.  $6x^3 + 18x^2 + x + 3$

46.  $7x^3 + 2x^2 + 28x + 8$

47.  $n^3 - 2n^2 + 5n - 10$

48.  $10b^3 - 16b^2 + 25b - 40$

49.  $2m^3 - 2m^2 + 3 - 3m$

50.  $2d^3 - d^2 - 3 + 6d$

51.  $6f^3 - 8f^2 + 20 - 15f$

Fill in the missing part of each factorization.

55.  $16v + 12v^2 = 4v(4 + \square)$

56.  $15x - 25x^2 = 5x(3 - \square)$

57.  $-16k^3 - 24k^2 = -8k^2(\square + 3)$

58.  $-x - 10 = -1(\square + 10)$