

Intermediate Algebra
Review A1: Semester 1 Final Exam

Name: Key-Korhonen Hour: _____

Add or subtract.

50. $4y+5-3y-2$

$y+3$

51. $4n^3-2n^4+4-n^3$

$3n^3-2n^4+4$

$-2n^4+3n^3+4$

52. $-h^3-2h^2+4h^3-h^2+5$

$3h^3-3h^2+5$

53. $(3w-4)+(2w+8)$

$5w+4$

54. $(12-3x)-(x-x^2+4)$

x^2-4x+8

55. $(k-k^3)-(5+k-k^5)$

k^5-k^3-5

Multiply.

56. $(3q)(4q)$

$12q^2$

57. $-6(2x-4)$

$-12x+24$

58. $(5fx)(-3x)$

$-15fx^2$

59. $-2x(x^2-4x+7)$

$-2x^3+8x^2-14x$

60. $(x-3)(x+7)$

$x^2+4x-21$

61. $(3x-1)(3x-2)$

$9x^2-9x+2$

62. $(y-5)(y+5)$

y^2-25

63. $(4g-1)(7g+4)$

$28g^2+9g-4$

64. $(k+12)(k-3)$

$k^2+9k-36$

65. $(3n-8)^2$

$9n^2-48n+64$

66. $(x+12)^2$

$x^2+24x+144$

67. $(5k^3-7)(5k^3+7)$

$25k^6-49$

Write the prime factorization of each number.

68. 40 $\begin{matrix} - & 4 & \cdot & 10 \\ & 2 & & 2 & \cdot & 5 \end{matrix}$

$2^3 \cdot 5$

69. 114 $\begin{matrix} 2 & \cdot & 57 \\ & & 3 \end{matrix}$

$2 \cdot 3 \cdot 19$

Find the GCF of each pair of numbers.

70. 15 and 50

5

71. 54 and 81

9 27