

ALG 2
Review 2 for Test

DO CIRCLED PROBLEMS ON LOOSELEAF.

● Lesson 5-4 Factor each expression.

15. $x^2 + 3x - 54$

16. $x^2 + 10x + 24$

17. $x^2 - 36$

(18) $x^2 - 9x - 36$

(19) $x^2 - 15x + 56$

(20) $25x^2 + 70x + 49$

(21) $7x^2 - 20x - 3$

(22) $5x^2 + 23x - 10$

23. $\frac{1}{4}x^2 - 4$

24. $x^2 - 6x - 16$

25. $4x^2 + 12x + 40$

26. $4x^2 - 6x + 9$

● Lesson 5-5 Solve each equation by factoring, by taking square roots, or by graphing. When necessary, round your answer to the nearest hundredth.

27. $x^2 + 4x - 1 = 0$

(28) $4x^2 - 100 = 0$

29. $x^2 = -2x + 1$

(30) $x^2 - 9 = 0$

(31) $2x^2 + 4x = 70$

(32) $x^2 - 30 = 10$

(33) $x^2 + 4x = 0$

(34) $x^2 + 3x + 2 = 0$

● Lesson 5-6 Simplify each expression.

(35) $(3 - i) + (5 - 2i)$

(36) $(4 + 2i)(1 - i)$

(37) $(4 + 2i) - (3 + 5i)$

(38) $(8 - 3i)(6 + 9i)$

(39) $(2 + 5i) - (-6 + i)$

(40) $(-2 - 3i)(7 - i)$

● Lesson 5-6 Solve each equation. Check your answers.

(41) $x^2 + 16 = 0$

(42) $4x^2 = -1$

(43) $x^2 = -10$

(44) $4x^2 + 48 = 0$

45. $-2x^2 = 5$

46. $x^2 + 3 = 0$

● Lesson 5-6 Find the first three output values of each fractal-generating function.
Use $z = 0$ as the first input value.

47. $f(z) = z^2 - i$

48. $f(z) = z^2 + 2 + i$

● Lessons 5-7 and 5-8 Solve each equation by completing the square or using the Quadratic Formula.

49. $x^2 + 5x + 8 = 4$

50. $8x^2 + 64 = 0$

(51) $2x^2 - 5x + 1 = 0$

52. $3x^2 = x - 9$

(53) $x^2 + 10 = 4x - 2$

54. $x^2 - 7x = 0$

55. $x^2 + 4x + 4 = 0$

56. $x^2 - 7 = 0$

(57) $x^2 + 8x - 17 = 0$

TURN IN WHAT YOU'VE COMPLETED
AT THE END OF CLASS. IF ANY PROBLEMS
REMAINS, FINISH FOR HOMEWORK. THIS ASSIGN-
MENT IS TIED TO RETESTING, SO YOU MUST
COMPLETE TO STAY ELIGIBLE. KEEP THIS SHEET.
ONLY TURN IN LOOSELEAF PAPER(S).