Name key Class _____ Date _____

Practice 10-4

Solving Quadratic E

Solve each equation by finding square roots. If the equation has no real solution, write *no solution*. If the value is irrational, round to the nearest hundredth.

1. $x^2 = 16$ ±4
2. $x^2 - 144 = 0$
3. $3x^2 - 27 = 0$
4. $x^2 + 16 = 0$ n.s.
5. $x^2 = 12$
6. $x^2 = 49$
7. $x^2 + 8 = -10$ n.s
8. $3x^2 = 300$
9. $2x^2 - 6 = 26$
10. $x^2 = 80$ ±8.94
11. $81x^2 - 10 = 15$
12. $2x^2 = 90$
13. $x^2 = 300$ ±17.32
14. $4x^2 + 9 = 41$
15. $2x^2 + 8 = 4$
16. $x^2 + 8 = 72$ ±8
17. $4x^2 + 6 = 7$
18. $x^2 = 121$
19. $5x^2 + 20 = 30$ ±1.41
20. $x^2 + 6 = 17$
21. $3x^2 + 1 = 54$
22. $2x^2 - 7 = 74$ ±6.36
23. $x^2 + 1 = 0$
24. $4x^2 - 8 = -20$
25. $9x^2 = 1$ ± 1/3
26. $x^2 + 4 = 4$
27. $3x^2 = 1875$
28. $x^2 = 9$ ±3
29. $5x^2 - 980 = 0$
30. $x^2 - 10 = 100$
31. $4x^2 - 2 = 1$ ±.87
32. $3x^2 - 75 = 0$
33. $x^2 + 25 = 0$
34. $2x^2 - 10 = -4$ ±1.73
35. $4x^2 - 3 = 3$
36. $4x^2 - 8 = 32$
37. $7x^2 + 8 = 15$ ±1
38. $x^2 + 1 = 26$
39. $6x^2 = -3$
40. $x^2 - 400 = 0$ ±20
41. $7x^2 - 8 = 20$
42. $2x^2 - 1400 = 0$
43. $5x^2 + 25 = 90$ ±3.61
44. $x^2 + 4x^2 = 20$
45. $5x^2 - 18 = -23$
46. $3x^2 - x^2 = 10$ ±2.24
47. $2x^2 + 6 - x^2 = 9$
48. $x^2 - 225 = 0$
49. $-3 + 4x^2 = 2$ ±1.12
50. $7x^2 - 1008 = 0$
51. $6x^2 - 6 = 12$

Solve each problem. If necessary, round to the nearest tenth.

52. You want to build a fence around a square garden that covers 506.25 ft^2. How many feet of fence will you need to complete the job?

53. The formula $A = 6s^2$ will calculate the surface area of a cube. Suppose you have a cube that has a surface area of 216 in.^{2}. What is the length of each side?

$A = 6s^2$

$\frac{216}{6} = \frac{6s^2}{6}$

$36 = s^2$

$s = 6$ in