

4.2 Solving Perfect Square Trinomials

Solve each equation.

1) $81n^2 - 1 = 80$

2) $49n^2 + 7 = 11$

3) $2 - 4n^2 = -4$

4) $3m^2 + 5 = 98$

5) $1 - 6k^2 = -95$

6) $5x^2 - 1 = 429$

7) What in the problems above tell you that we need to use a square root to solve?

8) Why do we get two solutions for the questions above?

Solve each equation.

9) $(x + 4)^2 = 16$

10) $(x - 3)^2 = 64$

11) $(x - 10)^2 = 169$

12) $(x + 7)^2 = -35$

13) $(x + 12)^2 = -90$

14) $(x + 37)^2 = 120$



15) When can you tell if you'll have rational, irrational, or imaginary solutions?

Solve each equation.

16) $(x - 7)^2 + 8 = 33$

17) $(x - 4)^2 + 10 = 110$

18) $(x + 8)^2 + 15 = 60$

19) $(x + 1)^2 + 23 = 17$

20) $(x - 2)^2 + 5 = -20$

21) $(x - 35)^2 - 6 = 15$

22) Can you have an imaginary solution to $y = x + 5$? Why or why not?