

Name:

Period:

Date:

Practice Worksheet: Square Root Method

Solve the quadratic equation using the square root method. Show all work.

1] $x^2 - 25 = 25$	2] $20 - x^2 = -29$	3] $2x^2 - 1 = 7$
4] $\frac{x^2}{25} - 6 = -2$	5] $\frac{2}{3}x^2 - 4 = 12$	6] $4(x^2 - 8) = 84$
7] $4(x - 1)^2 = 8$	8] $(x + 2)^2 - 6 = 30$	9] $7(x - 4)^2 - 18 = 10$

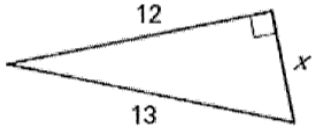
$$10] \frac{1}{2}(x - 4)^2 + 2 = 10$$

$$11] (4x - 5)^2 = 64$$

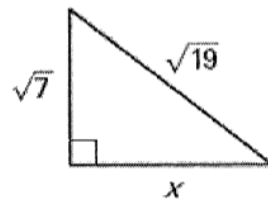
$$12] (3x + 6)^2 - 18 = 0$$

Find the length of the missing side of the right triangle. Show all work.

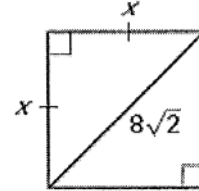
13]



14]



15]



From 1970 to 1990, the average cost of a new car, C , can be approximated by the model $C = 30.5t^2 + 4192$ where t is the number of years since 1970.

16] What was the average cost of a car in 1987?
Show all work.

17] During which year was the average cost of a new car \$7,242? Show all work.