Date:

Chapter: Chapter 5:5 --> Completing the Square

Objectives: Solve quadratic equations by using the

Square Root Property and by Completing the Square

Notes:

Square Root Property

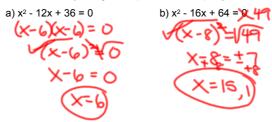
- 1) Need a perfect square trinomial on one side of the equation and a constant on the other side.
- 2) Factor the perfect square trinomial. (X±#)
- 3) Use the Square Root Property to solve for the variable.

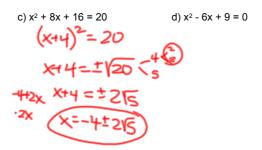
Completing the Square

- --Method used to solve any quadratic equation--
- 1) Get all variables on one side of the equation and constants on the other.
- 2) Make sure the coefficient on the x² term is 1. If it's not, divide by the coefficient on all terms!
- 3) Add blanks to both sides. +
- 4) Take 1/2 of b and put in parentheses in #6
- 5) Square it (1/2 of b) and put it in the blanks
- 6) Parentheses squared (
- 7) Square Root Property (±!!)
- 8) Solve for the variable

Examples:

Ex. 1 - Solve by using the Square Root Property.

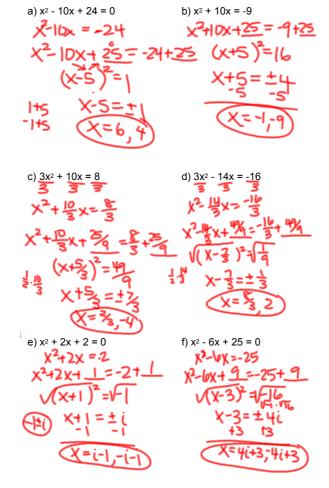




Ex. 2 - Find the value of c that makes the quadratic equation a perfect square.



Ex. 3 - Solve by Completing the Square.



Homework:

p. 288 (#14-46 Evens, 58, 59, 63-65)