

Section 2.2: THE MULTIPLICATION PROPERTY OF EQUALITY

When you are done with your homework you should be able to...

- π Use the multiplication property of equality to solve equations
- π Solve equations in the form of $-x = c$
- π Use the addition and multiplication properties to solve equations
- π Solve applied problems using formulas

WARM-UP:

Solve:

1. $5z - 12 = z + 8$

2. $x = -7(2 - x) + 18$

THE MULTIPLICATION PROPERTY OF EQUALITY

The _____ real number or _____
expression may _____ sides of an _____
without changing the _____. That is,

Example 1: Solve the following equations. Check your solutions.

1. $-5z = -20$

4. $-\frac{1}{8}x = 6$

2. $-51 = -y$

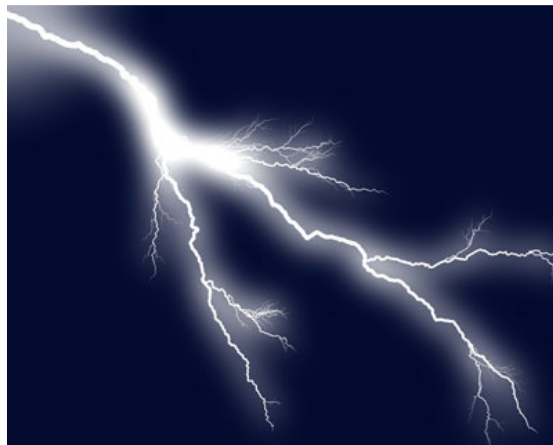
5. $6z - 3 = z + 2$

3. $8x - 3x = -45$

6. $5y + 6 = 3y - 6$

APPLICATIONS

1. The formula $M = \frac{n}{5}$ models your distance, M , from a lightning strike in a thunderstorm if it takes n seconds to hear thunder after seeing the lightning.



If you are three miles away from the lightning flash, how long will it take the sound of thunder to reach you?