

Special Equations & Solutions

SEQIN2

Identity - if you get an equation that is always true, the original equation is an identity & there are an infinite # of solutions

solution - "all real numbers"

Ex:  $2c + 7 + c = 3(c + 2) + 1$

$$3c + 7 = 3c + 6 + 1$$

$$\cancel{3c} + 7 = \cancel{3c} + 7$$

$$7 = 7 \text{ true}$$

all real #s

Contradiction - if you get an equation that is false, the original equation is a contradiction & there are no solutions

solution - "no solution"

Ex:  $4y + 7 - y = 10 + 3y$

$$\begin{array}{r} \underbrace{\phantom{3y}} \\ 3y + 7 = 10 + 3y \\ -3y \quad -3y \\ \hline 7 = 10 \text{ false} \end{array}$$

no solution