

Topic: Solving equations with variables on both sides

w/ variables on same side } variables on both sides

*combine like terms

(ex) $2x - 4x = 6$

$(-\frac{1}{2}) -2x = 6(-\frac{1}{2})$
 $x = -3$

(ex)

$2x = -4x + 6$ * get all x's on to one side
 $+4x$ $+4x$

$(\frac{1}{6}) 6x = \frac{6}{6} (\frac{1}{6})$
 $x = 1$

(ex)

$4z + -8z + 6 = 3z + -18$

*combine like terms

$-4z + 6 = 3z + -18$
 $+ -3z$ $+ -3z$

*got all x's to one side

$-7z + 6 = -18$
 $+6$ $+6$

*solve

$(-\frac{1}{7}) -7z = -24(-\frac{1}{7})$

$z = \frac{24}{7}$

(ex)

$4 + -2(2x + 3) = -7x + 2x + -8$

*distribute

$4 - 4x + -6 = -7x + 2x + -8$

*combine like terms

$-4x - 2 = -5x + -8$
 $+4x$ $+4x$

*get all x's on one side

$-2 = -x + -8$
 $+8$ $+8$
 $(-10) = -x$

*solved

$x = -6$