

Solve. $|x + 2| = 3x - 6$

$$\begin{array}{l}
 \begin{array}{c} + & & + \\ | & & | \\ \hline & 0 & \end{array} \\
 x+2 = -(3x-6) \quad x+2 = 3x-6 \\
 x+2 = -3x+6 \quad \text{or} \quad 8 = 2x \\
 4x = 4 \quad \text{or} \quad x = 4 \\
 \cancel{x = 1}
 \end{array}$$

Not a solution
to the original equation.

Extraneous Solution:

A solution to an equation that doesn't make the original equation true.

For absolute value equations, extraneous solutions are possible when there is a variable outside of the absolute value symbols.

Sec 2-1:

A Relation is: A relation is a set of pairs of input and output values.

A bunch of points!

There may or may not be any special relationship amongst the points.

Use this relation:

(9, 3) (4, 1) (-6, 12) (4, 6) (-10, 1)

State the Domain and Range of this relation

Domain: -10, -6, 4, 9
X

Range: 1, 3, 6, 12
Y