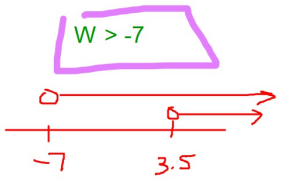
State the solution to this compound inequality as a single statement if possible.

$2W - 3 > 4$ OR $5 - W < 12$

$+3 \quad +3 \qquad -5 \quad -5$

$\frac{2W}{2} > \frac{7}{2} \qquad \frac{-W}{-1} < \frac{7}{-1}$

$W > 3.5 \qquad W > -7$

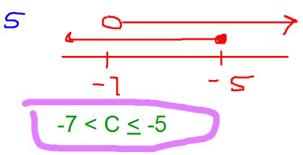


$C + 11 \leq 6$ AND $2C + 15 > 1$

$-11 \quad -11 \qquad -15$

$C \leq -5 \qquad \frac{2C}{2} > \frac{-14}{2}$

$C > -7$



$9G + 2 > 11$ OR $16 - 2G > 3$

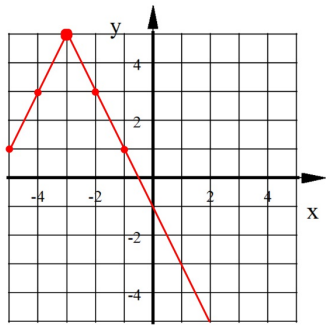
$-2 \quad -2 \qquad -16 \quad -16$

$\frac{9g}{9} > \frac{9}{9} \qquad \frac{-2g}{-2} > \frac{-13}{-2}$

$g > 1 \qquad g < 6.5$

All Real #'s

Graph this equation.



$y = -2|x + 3| + 5$

- opens down
- 2 times taller (sides have a slope of 2 and -2)
- shift 3 units left
- shift 5 units up

Vertex is (-3,5)

Four consecutive odd numbers have a sum of -104.
Write and solve an equation to find these four numbers.

$x + x + 2 + x + 4 + x + 6 = -104$

$4x + 12 = -104$

$-12 \quad -12$

$\frac{4x}{4} = \frac{116}{4}$

$x = 29$

$-29, -27, -25, -23$

Sec 2-1: Relations and Functions

Sec 2-1: Relations and Functions

Relation

A set of ordered pairs

(a bunch of points)

Function

A kind of relation where each x is paired with one and only one y.

Each input produces only one output

Which of the following is correct?

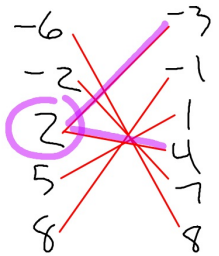
1. ~~Every Relation is a Function~~
   Every Rectangle is a Square
2. Every Function is a Relation
   Every Square is a Rectangle

Mapping Diagram

(5,1), (-2, 7), (2, -3), (8, -1), (2, 4), (-6, 8)

1. List the Domain and Range
2. Connect each member of the Domain with its corresponding value in the Range.

Domain: Range:



Is this Relation a function?

If any domain value has more than one line coming from it then the relation is NOT a function

since the domain value 2 connects to both range values -3 and 4 this relation is NOT a function