Algebra I

8-1

Equations in Two Variables

Solve - Get the variable on a side by itself.

What does it mean to solve:

$x + y = 4$

(2,2) (-2,6)
(3,1) (10,-6)
(4,0)
(-1,5)

How many solutions does $x + y = 4$ have? adjective infinite.

noun infinity → ∞

State whether each ordered pair is a solution of the given equation.

1) $5x + 2y = 23$ (3, 4) (7, -6)

$5(3)+2(4)=23$
$15 + 8 = 23$
Yes

$5(7)+2(-6)=23$
$35 + (-12) = 23$
Yes

Solve each equation if x and y are whole numbers.

13) $2x + y = 6$

{(0,6) (1,4) (2,2) (3,0)}

~~(4,-2)~~ Not a whole

25) $xy + 7 = 23$

$xy + 7 - 7 = 23 - 7$
$xy = 16$

{(1,16) (8,2) (2,8) (16,1) (4,4)}

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2-36 even