

# Combinations of Two Variables

Sometimes, algebraic equations can be satisfied with more than one combination of numbers.

$$a - b = 9$$

Find all the possible combinations for the two variables **when both are whole numbers between 10 and 25.**

a	19	20	21	22	23	24	25
b	10	11	12	13	14	15	16

Why can the combination  $a = 27, b = 18$  not be a correct answer?

When you are asked to list **all** the possible combinations of two variables, it is important to work systematically so you know you have found all the possibilities.

$$a + b = 14$$

List all the possible values of  $a$  and  $b$ , **where  $a$  and  $b$  are  $< 9$ .**

$0 + 14 = 14$

$5 + 9 = 14$

$1 + 13 = 14$

$6 + 8 = 14$

$2 + 12 = 14$

$7 + 7 = 14$

$3 + 11 = 14$

$8 + 6 = 14$

$4 + 10 = 14$

$9 + 5 = 14$

