

Name \_\_\_\_\_

**Use the Distributive Property** to express a sum of two whole numbers 1-100 with a common factor as a multiple of a sum of two whole numbers with no common factor.

**Definition of Distributive Property**

- Distributive property states that the product of a number and a sum is equal to the sum of the individual products of addends and the number.

That is:  $a(b + c) = ab + ac$

**Using the distributive property to rewrite a sum**

$$50 + 75$$

Distributive answer (the "star of the show"):  $25(2 + 3)$

We found the GCF of 50 and 75. That factor is on the outside of the parentheses. When 25 divides into 50 exactly 2 times it becomes an addend in the parentheses. 25 divides into 75 exactly 3 times, so it is the other addend.

The "supporting actors" (the proof) is  $25 \times 2 = 50$  and  $25 \times 3 = 75$      $50 + 75 = 125$      $25(2 + 3) = 25(5) = 125$

**Another Example of Distributive Property**

$$5(3 + 1) = (5 \times 3) + (5 \times 1) = 15 + 5 = 20$$

$$5(3 + 1) = 5(4) = 20$$

**Practice-** Using the distributive property, rewrite the sum of the given numbers as a multiple of a sum of two whole numbers with no common factor greater than one.

1) 20, 30

11) 80, 90

2) 24, 36

12) 12, 15

3) 50, 45

13) 70, 80

4) 60, 75

14) 12, 24

5) 100, 90

15) 20, 50

6) 15, 30

16) 99, 33

7) 18, 40

17) 22, 32

8) 25, 75

18) 21, 49

9) 36, 72

19) 48, 60

10) 60, 45

20) 60, 100