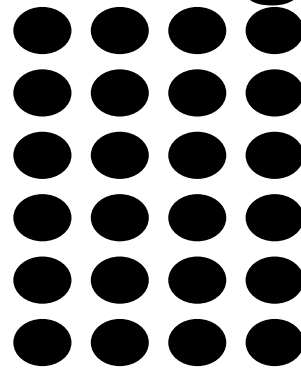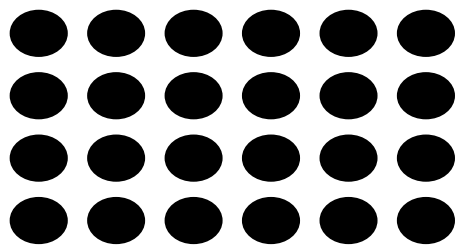# Commutative Property of Multiplication:

The <u>order</u> in which numbers are <u>multiplied</u> does not change the product.

$$4 \times 6 = 6 \times 4$$

Associative Property of Multiplication:

The <u>way</u> in which numbers are <u>grouped</u> does not change their product.

$$(4 \times 2) \times 3 = 4 \times (2 \times 3)$$

$$8 \times 3 = 4 \times 6$$

Identity Property of Multiplication:

The <u>product of 1</u> and any number is <u>that number</u>.

$$4 \times 1 = 4$$

Zero Property of Multiplication:

The <u>0 is multiplied</u> by a number, the <u>product is 0</u>.

$$4 \times 0 = 0$$

Identity Property of Addition:

If <u>0 is added</u> to a number, the sum <u>equal</u> that number.

$$4 + 0 = 4$$

Associative Property of Addition:

The <u>way</u> in which numbers are <u>grouped</u> does not change their sum.

$$(4 + 2) + 3 = 4 + (2 + 3)$$

$$6 + 3 = 4 + 5$$

Commutative Property of Addition:

The <u>order</u> in which numbers are <u>added</u> does not change their sum.

$$4 + 3 = 3 + 4$$

Division Rule for 1:

$$4 \div 1 = 4$$
$$4 \div 4 = 1$$

Division Rule for 0:

$$0 \div 4 = 0$$

$$4 \div 0 = \text{impossible}$$