

## 5.2 RATIO TABLES

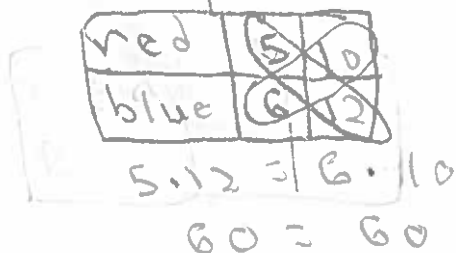
ESSENTIAL QUESTION:

How can you find 2 ratios that describe the same relationship?

Alan has a bag of marbles that has 6 blue marbles and 5 red marbles. What is the ratio of red marbles to blue marbles?  $5 \text{ to } 6$

Sally also has a bag of marbles that has 10 red marbles and 12 blue marbles. What is the ratio of red marbles to blue marbles?  $10 \text{ to } 12$

$5:6$  and  $10:12$  are equivalent ratios.



If you think of equivalent ratios as equivalent fractions the cross products are equal.

You can find and organize equivalent ratios in a ratio table.

### EXAMPLE 1 COMPLETING RATIO TABLES

Find the missing value(s) in each ratio table. Then write the equivalent ratios.

$\div 1 \quad \div 1$

<b>Pens</b>	1	2	3
<b>Pencils</b>	3	6	9

$\div 3 \quad \div 3$

$1:3 \quad 2:6 \quad 3:9$

$\div 4 \quad \div 4$

<b>Plantains</b>	4	8	12
<b>Bananas</b>	3	6	9

$\div 3 \quad \div 3$

$4:3 \quad 4:6 \quad 12:9$

$\times 2 \quad \times 3$

<b>Dogs</b>	4	8	24
<b>Cats</b>	6	12	36

$\times 2 \quad \times 3$

$4:6 \quad 8:12 \quad 24:36$

$\times 2 \quad \times 4$

<b>Euros</b>	5	10	40
<b>Dollars</b>	4	8	32

$\times 2 \quad \times 4$

$5:4 \quad 10:8 \quad 40:32$

EXAMPLE 2 USING A RATIO TABLE

1) At an ice cream shop the ratio of sugar cones sold to waffle cones sold is 6 : 5. If there are 42 sugar cones sold, how many waffle cones would be sold?

Sugar cones	6	42
waffle cones	5	35

x1

35 waffle cones were sold.

2) At summer camp the ratio of boys to girls was 5 : 4. If there were 40 boys, how many girls were there?

Boys	5	40
Girls	4	32

x8

There were 32 boys at summer camp.