5.2 RATIO TABLES

ESSENTIAL QUESTION: How can you find 2 ratios the describe the same relationship?

Write $\frac{6}{8}$ in simplest form. $\frac{3}{4}$ $\frac{6}{8}$ and $\frac{3}{4}$ are _equivalent_ fractions.

Equivalent fractions means that they are _equal_. They are the same _value_.

The ratios _6:8_ and _3:4_ are _equivalent_ ratios.

Two ratios that describe the same _relationship_ are called equivalent ratios.

You can find equivalent ratios by:
adding or _subtracting_ quantities in equivalent ratios.

Multiplying or _dividing_ each quantity in a ratio by the same number

You can find and organize equivalent ratios in a _ratio table_.
If you think of equivalent ratios as equivalent fractions the cross products are equal. 6:8 & 3:4 → 6·4 = 8·3

EXAMPLE 1 COMPLETING RATIO TABLES

Find the missing value(s) in each ratio table. Then write the equivalent ratios.   24 24

Pens	1	2	3
Pencils	3	C	9

+1 +1 (top)   +7 +3 (bottom)

1:3, 2:6, 3:9

Dogs	4	8	24
Cats	6	12	36

x2 x3 (top)   x2 x3 (bottom)

4:6, 8:12, 24:36

Plantains	4	8	12
Bananas	3	6	9

+4 +4 (top)   +3 +3 (bottom)

4:3, 8:6, 12:9

Euros	5	10	40
Dollars	4	8	32

x2 x4 (top)   x2 x4 (bottom)

5:4, 10:8, 40:32

<u>EXAMPLE 2 USING A RATIO TABLE</u>

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 waffles cones would be sold?

	×7	
Sugar Cones	6	42
Waffle Cones	5	35

×7

35 waffle cones would be sold.

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

×8

Boys	5	40
girls	4	32

×8

There were 32 girls