

# RATIO

## A RATIO

### A.1 EXPRESSING RATIOS IN DIFFERENT FORMS

**Ex 1:** The ratio of 3 to 2 is  $\boxed{3}:\boxed{2}$  or  $\frac{\boxed{3}}{\boxed{2}}$ .

*Answer:* The ratio of 3 to 2 can be written as 3 : 2 or  $\frac{3}{2}$ .

**Ex 2:** The ratio of 4 to 5 is  $\boxed{4}:\boxed{5}$  or  $\frac{\boxed{4}}{\boxed{5}}$ .

*Answer:* The ratio of 4 to 5 can be written as 4 : 5 or  $\frac{4}{5}$ .

**Ex 3:** The ratio of 7 to 3 is  $\boxed{7}:\boxed{3}$  or  $\frac{\boxed{7}}{\boxed{3}}$ .

*Answer:* The ratio of 7 to 3 can be written as 7 : 3 or  $\frac{7}{3}$ .

**Ex 4:** The ratio of 6 to 9 is  $\boxed{6}:\boxed{9}$  or  $\frac{\boxed{6}}{\boxed{9}}$ .

*Answer:* The ratio of 6 to 9 can be written as 6 : 9 or  $\frac{6}{9}$ .

## B PART-PART RATIOS

### B.1 FINDING RATIOS IN PART-PART RELATIONSHIPS

**Ex 5:** What is the ratio of girls to boys?



*Answer:*

- There are 2 girls.
- There is 1 boy.
- The ratio of girls to boys is 2 : 1.

**Ex 6:** What is the ratio of girls to boys?

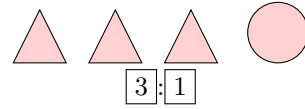


*Answer:*

- There are 2 girls.
- There are 3 boys.

- The ratio of girls to boys is 2 : 3.

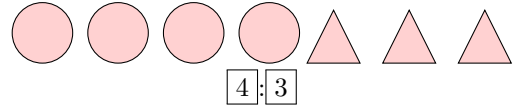
**Ex 7:** What is the ratio of triangles to circles?



*Answer:*

- There are 3 triangles.
- There is 1 circle.
- The ratio of triangles to circles is 3 : 1.

**Ex 8:** What is the ratio of circles to triangles?



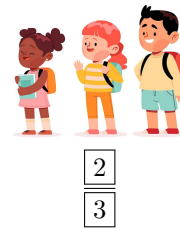
*Answer:*

- There are 4 circles.
- There are 3 triangles.
- The ratio of circles to triangles is 4 : 3.

## C PART-WHOLE RATIOS

### C.1 FINDING RATIOS IN WHOLE-PART RELATIONSHIPS

**Ex 9:** What is the ratio of girls to kids?



*Answer:*

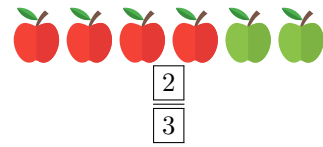
- There are 2 girls.
- There are 3 kids.
- The ratio of girls to kids is  $\frac{2}{3}$ .

**Ex 10:** What is the ratio of girls to kids?



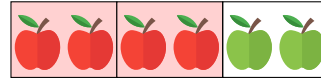
*Answer:*

- There are 2 girls.
- There are 5 kids.
- The ratio of girls to kids is  $\frac{2}{5}$ .



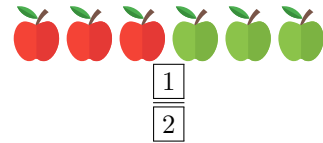
Answer:

- There are 4 red apples.
- There are 6 apples in total.
- The ratio of red apples to all apples is  $\frac{4}{6}$ .



- The simplified ratio is  $\frac{2}{3}$ .

**Ex 15:** What is the ratio of red apples to all apples (write in simplified form)?



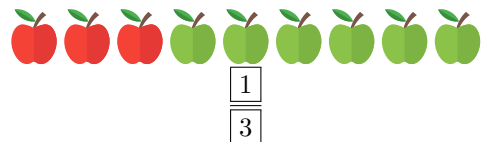
Answer:

- There are 3 red apples.
- There are 6 apples in total.
- The ratio of red apples to all apples is  $\frac{3}{6}$ .



- The simplified ratio is  $\frac{1}{2}$  (half are red).

**Ex 16:** What is the ratio of red apples to all apples (write in simplified form)?



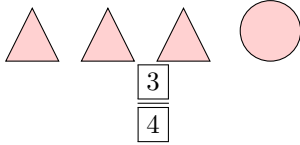
Answer:

- There are 3 red apples.
- There are 9 apples in total.
- The ratio of red apples to all apples is  $\frac{3}{9}$ .



- The simplified ratio is  $\frac{1}{3}$ .

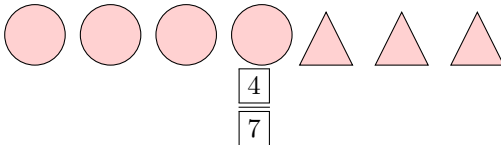
**Ex 11:** What is the ratio of triangles to shapes?



Answer:

- There are 3 triangles.
- There are 4 shapes.
- The ratio of triangles to shapes is  $\frac{3}{4}$ .

**Ex 12:** What is the ratio of circles to shapes?



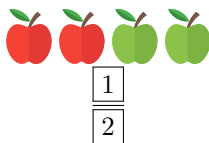
Answer:

- There are 4 circles.
- There are 7 shapes.
- The ratio of circles to shapes is  $\frac{4}{7}$ .

## D EQUIVALENT RATIOS

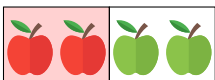
### D.1 SIMPLIFYING RATIOS

**Ex 13:** What is the ratio of red apples to all apples (write in simplified form)?



Answer:

- There are 2 red apples.
- There are 4 apples in total.
- The ratio of red apples to all apples is  $\frac{2}{4}$ .



- The simplified ratio is  $\frac{1}{2}$  (half are red).

**Ex 14:** What is the ratio of red apples to all apples (write in simplified form)?

## E PART IN WHOLE-PART RELATIONSHIPS

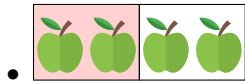
### E.1 FINDING PARTS IN WHOLE-PART RELATIONSHIPS

Ex 17:



$\frac{1}{2}$  of 4 is 2.

Answer:



- $\frac{1}{2}$  of 4 is 2.

Ex 18:



$\frac{2}{3}$  of 6 is 4.

Answer:



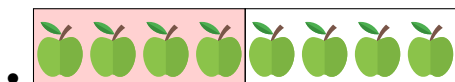
- $\frac{2}{3}$  of 6 is 4.

Ex 19:



$\frac{1}{2}$  of 8 is 4.

Answer:



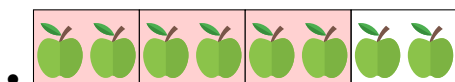
- $\frac{1}{2}$  of 8 is 4.

Ex 20:



$\frac{3}{4}$  of 8 is 6.

Answer:



- $\frac{3}{4}$  of 8 is 6.