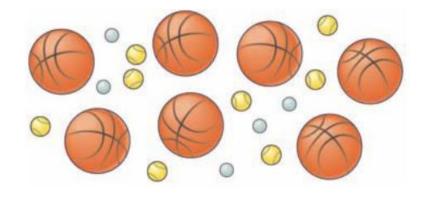
Unit 5: Percent, Ratio, and Rate

Name: \_\_\_\_\_

## 5.5 Exploring Ratios – Notes

Here is a collection of sports balls.



We can use a <u>two-term ratio</u> to compare one part of the collection to the whole collection. There are <u>to zo</u> basketballs compared to <u>20</u> balls. The ratio of basketballs to all the balls is <u>1 to zo</u>, which is written as <u>1:20</u>. This is a <u>Part-to-Whole</u> ratio.

We can write a part-to whole ratio as a fraction. The ratio of basketballs to all the balls is 7:20A part-to-whole ratio can also be written as a percent:  $7:20 \Rightarrow \frac{1}{20} = 0.35 = 35\%$ So, 35% of the balls are basketballs.

We can use a two-term ratio to compare one part of the collection to another part of the collection. There are 5 golf balls compared to 8 tennis balls. The ratio of golf balls to tennis balls is written as 5 to 8, or 5. We cannot write the ratio in fraction form because the ratio is not comparing one part to the whole.

We can use a three-term ratio to compare the three types of balls. There are 5 golf balls to 8 tennis balls to 7 basketballs. We can write this as the ratio: 5 to 8 to 7, or 5:8:7.

- **Example:** At a class party, there are 16 boys, 15 girls, and 4 adults. Show each ratio as many different ways as you can.
  - a) boys to girls
    - 16 to 15

Deannot write this part to part ratio as a fraction.

b) boys to girls to adults 16 + 015 + 04 16:15:4

c) adults to total number of people at the party. 4 to 35 4:35  $\frac{4}{35} = 0.1143 = 11.43\%$ We can write the part to whole ratio as a percentage.