

PHYZ SPRINGBOARD: RATIOS



LIKE QUANTITIES

1. What is the meaning of the result of the division problem $35 \div 5$?
2. Which is the correct representation of the problem above: $\frac{35}{5}$ or $\frac{5}{35}$?
3. If the number of M&M's® in a fun size bag is F and the number of M&M's in a king size bag is K , how many fun size bags could be filled using the contents of one king size bag? Answer in the form of a ratio.
4. Suppose you have any two like quantities, A and B . What is the meaning of the ratio A/B ?
5. If there are 20 students for every teacher at school,
 - a. which is the correct equation relating the number of students [S] to the number of teachers [T]?
 $\frac{20S}{T} = T$ $\frac{20T}{S} = S$
 - b. Which equations below are also correct expressions relating the number of teachers and the number of students
 $\frac{S}{20} = T$ $\frac{T}{20} = S$ $\frac{20}{S} = T$ $\frac{20}{T} = S$ $\frac{S}{T} = 20$ $\frac{T}{S} = 20$

UNLIKE QUANTITIES

6. A 253 cm^3 sample of a solution has a mass of 736 g.
 - a. What is the meaning of $736/253$ in this context?
 - b. What is the meaning of $253/736$ in this context?
7. Suppose you have any two unlike quantities, A and B . What is the meaning of the ratio A/B ?
8. Suppose the calculation $63/18$ told me how many cents I had to pay for each ounce of vegetables in a can.
 - a. What is the price of the can of vegetables?
 - b. How many ounces are there in the can?
 - c. What is the meaning of $18/63$ in this context?