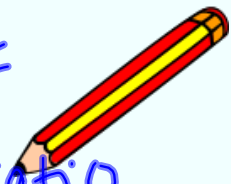



What are equivalent ratios?

- when you multiply some # by the 1st ratio to get the 2nd ratio
- ratios that are the same - have the same value

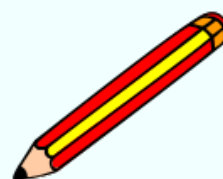


Can you give an example?


 - 2:4 and 4:8 and 6:12
 - 1:5 and 5:25

Two ratios are equivalent when:

- They have the same value!



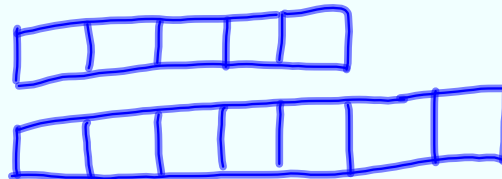
A County Superintendent of Highways is interested in the numbers of different types of vehicles that regularly travel within his county. In the month of August, a total of 192 registrations were purchased for passenger cars and pickup trucks at the local Department of Motor Vehicles(DMV). The DMV reported that in the month of August, for every 5 passenger cars registered, there were 7 pickup trucks registered. How many of each type of vehicle were registered in the county in the month of August?

a. Using the information in the problem, write four ratios and describe the meaning of each.

5:7 7:5 5:12 7:12

b. Make a tape diagram that represents the quantities in the ratios that you wrote.

Passenger cars
Pickup Trucks



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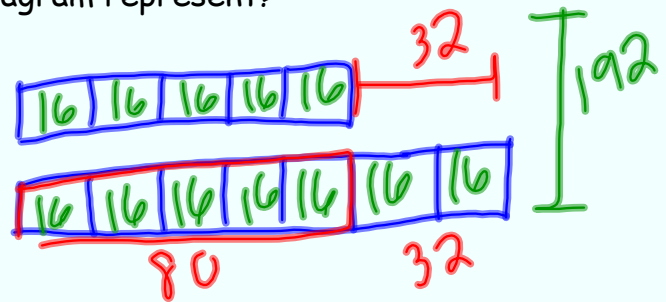
c. How many equal parts does the tape diagram consist of?

$$12 \overline{) 192} \\ \underline{121} \\ 72 \\ \underline{72} \\ 0$$

d. What total quantity does the tape diagram represent?

$$\begin{array}{r} 3 \\ 16 \\ \times 5 \\ \hline 80 \end{array}$$

 80 Passenger cars
 112 Pickup Trucks

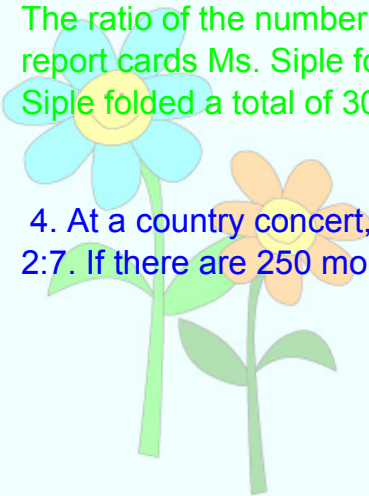


1. The ratio of the number of people who own a smartphone to the number of people who own a flip phone is 4:3. If 500 more people own a smartphone than a flip phone, how many people own each type of phone?

2. Sammy and David were selling water bottles to raise money for new football uniforms. Sammy sold 5 water bottles for every 3 water bottles David sold. Together they sold 160 water bottles. How many did each boy sell?

3. Ms. Johnson and Ms. Siple were folding report cards to send home to parents. The ratio of the number of report cards Ms. Johnson folded to the number of report cards Ms. Siple folded is 2:3. At the end of the day, Ms. Johnson and Ms. Siple folded a total of 300 report cards. How many did each person fold?

4. At a country concert, the ratio of the number of boys to the number of girls is 2:7. If there are 250 more girls than boys, how many boys are at the concert?



Exit Ticket!!

When Carla looked out at the school parking lot, she noticed that for every 2 minivans, there were 5 other types of vehicles. If there are 161 vehicles in the parking lot, how many of them are not minivans?

