Problems Involving Ratios & Proportions

1. There are twice as many oranges as there are apples. If there are 20 apples, how many oranges are there?

2. There are 7 times as many chairs as tables in a room. If there are 21 chairs, how many tables are there?

3. There are \(\frac{1}{4}\) as many oranges are there apples. If there are 20 apples, how many oranges are there?

4. At Espresso Royale, for every five people who order cappuccino, six people order espresso. On a given day, 363 people ordered either cappuccino or espresso. How many of them ordered espresso?

5. \(\frac{3}{4}\) pound of chocolate chips is enough to make \(1\frac{1}{3}\) pound of cookies. How many chocolate chips (in pounds) do you need to make 1 pound of cookies?

6. You are trying to decide between two cars. The one major factor that will solidify your decision is the gas-mileage the car gets. After test driving both cars extensively, you see that one car gets 313 miles on 12.9 gallons of gas; the other got 418 miles on 17.3 gallons of gas. Which car gets the better gas mileage?

7. If 8 men can chop 9 cords of wood in 6.5 hours, how long would it take 4 men to chop 3 cords, assuming that they work at the same rate as the group of 8 men?

8. \(\frac{3}{8}\) of the freshman at a large state university are planning to get a business degree. If there 828 more freshman who do not plan to major in business than those who do, how many freshman are planning to major in business?