Math 811

1. For each of the following figures, which fraction of the whole is shaded?

(a)	(b)	(c)
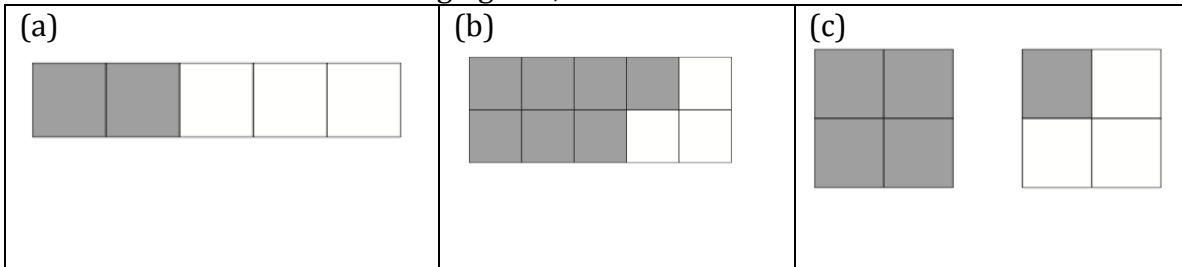
2. A math class has 14 women and 17 men. What is the fraction of women in the class?

3. A cubic meter of concrete mix contains 420 kg of cement, 150 kg of stone, and 120 kg of sand. What fractional part of the mix is sand?

4. Deirdre led a tour of a Spanish city for a group of foreign tourists. Of the 63 people in the group, 7 could speak Spanish. What fraction of the group could *not* speak Spanish?

5. What percent of each of the following figures is shaded?

(a)	(b)
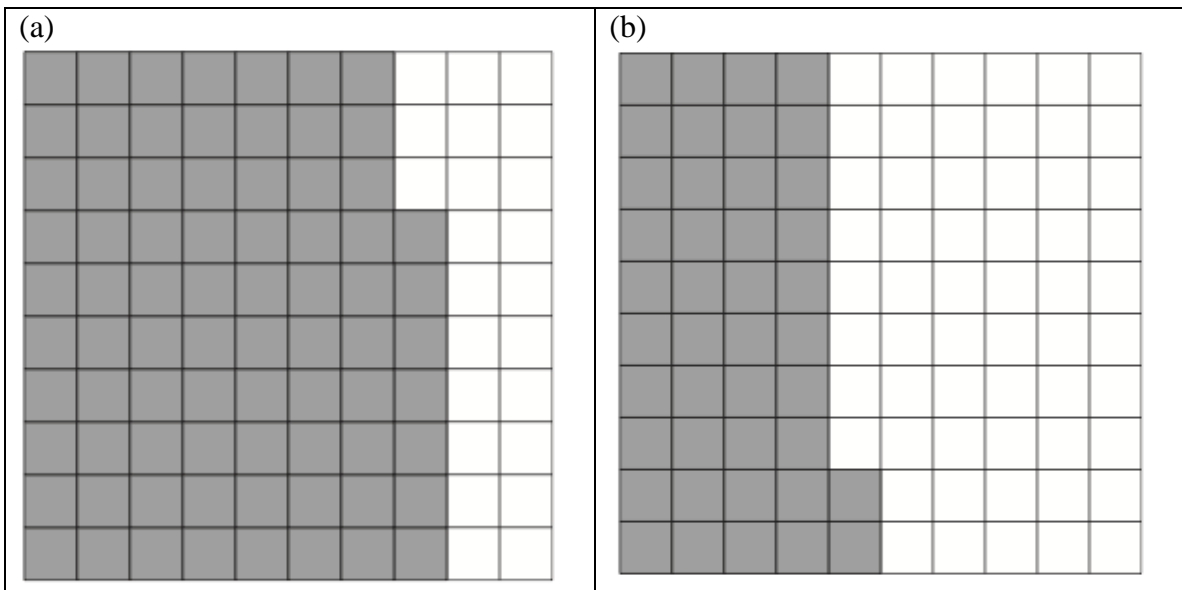
6. What is 60% of 200 kilometers?

7. 79% of what number is 82?

8. What percent of 50 is 23 ?

9. A lab technician has 9200 milliliters of a solution. 9% is acid. How many milliliters are acid?

10. A customer paid $8.94 in sales tax on a set of chairs priced at $149. What was the sales tax rate?

11. Andrew has $10 deducted from his paycheck each week for health insurance. This amounts to 4% of his gross income. What is his gross income?

12. Bicycles are often on sale in September. The regular price of one bicycle is $246.95. With a 25% discount, what is the sale price of the bicycle? Round to the nearest cent.

LCM and LCD

13. List all the factors of 44.

14. Write 20 as the product of prime factors.

15. What is the LCD for 1/10 and 4/15?

Saying numbers:

16. Write the number 32,406,003.12 in words.

17. For the numbers below, what *place value* does the 7 occupy?
    a. 1,734,019
    b. 10.723
    c. 127.56

Rates and Ratios:

18. If you go 675 miles on 15 gallons of gas, what is the unit rate?

19. If you buy 40 party favors for $32 what is the unit price?

20. Tuition at a certain college recently increased from $6000 to $7000. Find the ratio of increase in price to the original price. What percentage increase is that?