

## Math 8 Enriched

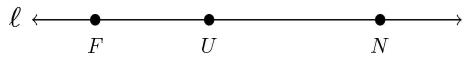
### Ch2 Review 2.1 to 2.3

Name \_\_\_\_\_

Date \_\_\_\_\_

1. If a car traveled 168 miles in 3.5 hours, what was the average rate of speed?
2. If 24 students in a class of 30 students were present, what percent of the students were absent?
3. If refreshments cost \$45 for 18 people, at the same rate how much would refreshments cost for 26 people?
4. George earned \$7.65 for the  $4\frac{1}{2}$  hours he baby-sat. At the same rate, how many dollars should he charge for 3 hours of baby-sitting?
5. A car, traveling at a constant speed, completes  $\frac{3}{7}$  of its trip in  $1\frac{1}{2}$  hours. In how many additional hours will it complete the entire trip?
6. In a college of education, the ratio of math majors to English majors is 5 to 1. If there are 42 math and English majors in all (and no one majors in both math and English), how many math majors are there?
7. There are 16 girls in a class of 30 students. Find the ratio of girls to boys. Express your answer as a common fraction.
8. A team won 15 games and lost 9 games. What is the team's winning percentage?
9. If \$19,600 is divided among three people so that their shares are in the ratio  $2:3:4$ , how many dollars are received by the person who gets the least amount?

10.  $F$ ,  $U$ , and  $N$  lie on line  $\ell$  so that  $\frac{FU}{UN} = \frac{2}{3}$ . If  $FN = 75$ , find the number of units in the length of  $\overline{UN}$ .



11. If the ratio of  $a$  to  $b$  is  $2:3$  and the ratio of  $b$  to  $c$  is  $4:5$  find the ratio of  $a:c$ .

12. Mary can do a job in half an hour. Her brother takes twice as long to do the same job. How many minutes would it take them to do the job working together?

13. The ratio of chocolate cones to vanilla cones sold at an ice cream shop is  $5:4$ . If 54 cones were sold, how many were chocolate?

14. Two snails start at the same point at the same time. Snail A travels north at a rate of 5 inches per hour. Snail B travels east at a rate of 12 inches per hour. After how many hours will they be 52 inches apart?

15. Mick Kanik has a container holding 110 quarts of a mixture of 30% grade A oil and 70% grade E oil. He has a second container holding 30 quarts of a mixture of 30% grade E oil and 70% grade A oil. If he mixes them, what percent, to the nearest whole percent, of the mixture will be grade A oil?

16. How many pounds of salt must be added to 75 pounds of 30% salt mixture to obtain a mixture that is 40% salt?
  
  
  
  
  
  
17. Two trains are headed directly toward each other at rates of 80 mph and 100 mph. How many miles apart are they 2 minutes before they impact?
  
  
  
  
  
  
18. If a cat and a half eat a fish and a half in a day and a half, how many days will it take 14 cats to eat 14 fish?
  
  
  
  
  
  
19. Three pipes A, B, and C can be used to fill a swimming pool. Pipe A requires 2 hours, pipe B 3 hours, and pipe C 4 hours to fill the pool alone. How many hours would it take all three pipes working together? Express your answer as a common fraction.
  
  
  
  
  
  
20. Three numbers in the ratio of 7:3:2 have a sum of 228. What is the difference between the smallest and the largest numbers?
  
  
  
  
  
  
21. Two drivers leave city A at the same time for city B which is 450 miles away. The first driver travels at 60 mph and the second driver travels at 50 mph. How many minutes separate their arrival times in city B?
  
  
  
  
  
  
22. Seven black cows and 4 brown cows give in 6 days exactly as much milk as 5 black cows and 8 brown cows give in 5 days. Which color cow gives more milk?

23. A train traveling at 100 km an hour takes 3 seconds to enter a tunnel and an additional thirty seconds to pass completely through it. Find the length, in kilometers, of the train. Express your answer as a common fraction.

24. 180 students attend a school dance. The ratio of girls to boys is 5 to 4. If twenty boys and ten girls leave, what is the new ratio of girls to boys that remain at the dance?

25. The director of the school cafeteria reported that 70% of the girls and 89% of the boys in the school ate the school lunch on Friday. This represents 80% of the students in the school. What is the ratio of girls to boys in the school? Express your answer as a common fraction.

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### Answer List

1. 48 mph	2. 20%	3. \$65
4. 5.10	5. 2	6. 35
7. $\frac{8}{7}$	8. 62.5%	9. 4,355.56
10. 45	11. 8 : 15	12. 20 min
13. 30	14. 4	15. 39
16. 12.5	17. 6	18. $1\frac{1}{2}$
19. $\frac{12}{13}$	20. 95	21. 90
22. brown	23. $\frac{1}{12}$ km	24. $\frac{3}{2}$
25. $\frac{9}{10}$		

### Catalog List

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