Name_____

Write the ratio as a fraction in lowest terms.

1) 5 to 9

2) 80 cents to 150 cents

3) 12 miles to 20 miles

4) $6\frac{1}{4}$ to 2

5) $7\dfrac{1}{5}$ to $7\dfrac{1}{4}$

6) 43.2 to 4.8

Write the ratio as a fraction in lowest terms. Be sure to make all necessary conversions.

7) 5 feet to 80 inches

8) 9 yards to 21 feet

9) 14 minutes to 5 hours

10) 16 hours to 120 days

11) 10 cents to $7

12) 9 pints to 8 cups

Use the bar graph to solve the problem.

13) The bar graph below shows the numbers of various colors of cars owned by the employees of a certain business. Write five ratios (expressed as fractions in lowest terms) that compare the least popular color to each of the other colors.
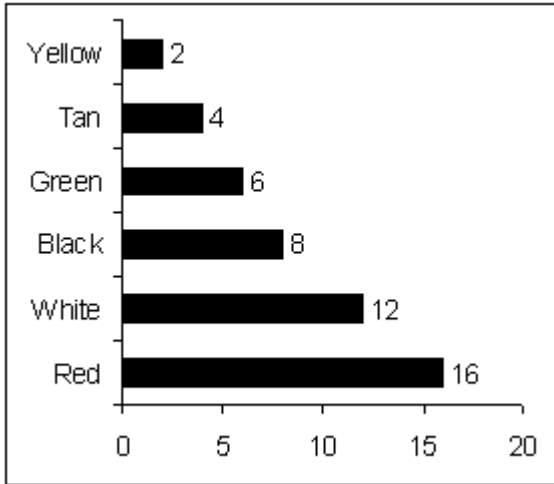
A) $\dfrac{2}{1}, \dfrac{2}{3}, \dfrac{1}{2}, \dfrac{1}{3}, \dfrac{1}{4}$

B) $\dfrac{1}{2}, \dfrac{2}{3}, \dfrac{3}{4}, \dfrac{4}{6}, \dfrac{5}{8}$

C) $\dfrac{1}{2}, \dfrac{1}{3}, \dfrac{1}{4}, \dfrac{1}{6}, \dfrac{1}{8}$

D) $\dfrac{1}{2}, \dfrac{2}{3}, \dfrac{1}{4}, \dfrac{1}{6}, \dfrac{1}{8}$

Use the information in the table to solve the problem. Write your answer as a fraction in lowest terms.
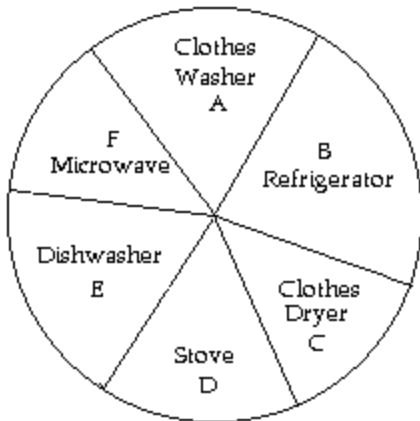
14) The table below shows the amounts of pollutants (in parts per million) in a sample of rainwater.

Pollutant	Amount (ppm)
A	32
B	27
C	20
D	9
E	8

Find the ratio of pollutant D to pollutant B.

4

Use the circle graph of one family's allowance for appliances in their new house to complete the exercise. Write ratios as fractions in lowest terms.
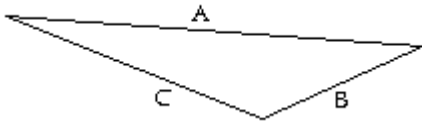
15)

A = $485   D = $690
B = $842   E = $492
C = $277   F = $397

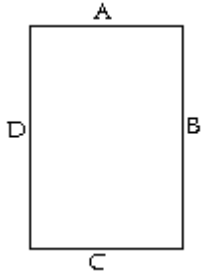Find the ratio of refrigerator to stove.

For the given figure, find the ratio of the length of the longest side to the length of the shortest side. Write the ratio as a fraction in lowest terms.

16)

A = 19 inches
B = 9 inches
C = 18 inches

17)

A = 0.5 yard
B = 3.5 yards
C = 0.5 yard
D = 3.5 yards

Solve the problem. Write ratios in lowest terms.

18) Joe drove $14\frac{1}{4}$ miles on Monday and $17\frac{1}{2}$ miles on Tuesday. Find the ratio of the distance Joe traveled on Monday to the distance he traveled on Tuesday.

19) Tuition at a certain college recently increased from $6000 to $11,000. Find the ratio of the increase in price to the original price.

Write the following as a rate in lowest terms.

20) 94 miles in 47 minutes

21) 1000 miles in 56 hours

22) 14 cars for 84 people

23) 8 tests for 24 students

24) 558 pounds per 81 packages

Find the unit rate.

25) $1680 earned in 4 weeks

26) 525 people in 30 buses

27) 165 miles on 5 gallons of gas

28) 595 miles in 7 hours

29) 682 cars in 620 households (reduce to a one household comparison)

30) 4 cents for 2 marbles

Fill in the table to solve the problem.

31)

Beginning Odometer Reading	Ending Odometer Reading	Miles Driven	Gallons of Gas Used	Miles Per Gallon (round to the nearest tenth)
53,312	53,742		16.3	

Find the best buy (based on cost per unit).

32) Brand A: 30 oz for $19.50
    Brand B: 25 oz for $15.75

33) Brand X: 8 oz. for $2.40
    Brand Y: 20 oz. for $5.00
    Brand Z: 24 oz. for $6.48

34) There are 3 available long distance calling cards.
   ABC Phone charges $0.01 per minute and a $0.41 connection charge.
   Bozo's Telecom charges $0.025 per minute and a $0.12 connection charge.
   BT&T charges $0.06 per minute and no connection charge.
   Which company has the best buy for a 15 minute phone call?

Solve the problem.
   35) If Alison's company charged $277.06 for 7 hours of work, how much did they charge per hour?

   36) David's net pay for a week at the video store was $60.15. If he worked 15 hours that week, what was his net pay rate?

   37) Mara can type 675 words in $\frac{1}{4}$ hour (15 minutes). How many words per minute can she type?

Answer Key
Testname: M20_5.1_5.2

1) $\dfrac{5}{9}$

2) $\dfrac{8}{15}$

3) $\dfrac{3}{5}$

4) $\dfrac{25}{8}$

5) $\dfrac{144}{145}$

6) $\dfrac{9}{1}$

7) $\dfrac{3}{4}$

8) $\dfrac{9}{7}$

9) $\dfrac{7}{150}$

10) $\dfrac{1}{180}$

11) $\dfrac{1}{70}$

12) $\dfrac{9}{4}$

13) C

14) $\dfrac{1}{3}$

15) $\dfrac{421}{345}$

16) $\dfrac{19}{9}$

17) $\dfrac{7}{1}$

18) $\dfrac{57}{70}$

19) $\dfrac{5}{6}$

20) $\dfrac{2 \text{ miles}}{1 \text{ minute}}$

21) $\dfrac{125 \text{ miles}}{7 \text{ hours}}$

22) $\dfrac{1 \text{ car}}{6 \text{ people}}$

23) $\dfrac{1 \text{ test}}{3 \text{ students}}$

24) $\dfrac{62 \text{ pounds}}{9 \text{ packages}}$

25) $420/week

26) 17.5 people/bus

27) 33 miles/gallon

28) 85 miles/hour

29) 1.1 cars/household

30) 2 cents/marble

31) miles driven: 430; miles per gallon: 26.4

32) Brand B

33) Brand Y

34) Bozo's Telecom

35) $39.58/hour

36) $4.01/hour

37) 45 words/minute