USING RATIONAL NUMBERS

FINAL TEST

Divide the following mixed numbers and put answers in proper form.

1) $3\ 5/8 \div 5\ 1/2 =$ 2) $4\ 3/4 \div 6\ 1/3 =$

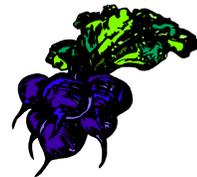3)   7/8 of 4 is what?   4)   9 is 1/4 of what?

5)   6 is 3/8 of what?   6)   3 is what part of 8?

7) This recipe makes 3 cups of pickled beats, change it to make 1 gal of pickled beets.

    2 lbs sliced beets
    1 1/2 cups sugar
    3/4 cups vinegar
    3   cinnamon sticks

Find the common denominator to determine the largest fraction.

8)   2/3 or 5/8 ➤   9)   3/8 or 4/9 ➤

Find the largest fraction by cross multiplying.

10)   3/8 or 7/16 ➤   11)   3/5 or 5/8 ➤

12)   Karl's driveway is 2/3 of a mile long. He walks out to get the mail and back six times a week. How far does he walk while getting the mail each week?

13)   Which is a better buy? 10 lbs of sugar for $4.23, or 4 lbs of sugar for $1.49?

Write these ratios in simplest fraction form.

14)   16 : 48   15)   21 : 12   16)   21 : 24

Tell if these ratios are equal or not by putting = or ≠ in the box.

17) $\dfrac{14}{8}$ ☐ $\dfrac{7}{4}$ 18) $\dfrac{3}{10}$ ☐ $\dfrac{4}{12}$ 19) $\dfrac{22}{7}$ ☐ $\dfrac{44}{14}$

20) $\dfrac{7}{16}$ ☐ $\dfrac{21}{50}$ 21) $\dfrac{6}{20}$ ☐ $\dfrac{15}{50}$ 22) $\dfrac{8}{5}$ ☐ $\dfrac{12}{7}$

Find the missing number to complete the proportion.

23) $\dfrac{3}{4} = \dfrac{21}{\square}$ 24) $\dfrac{5}{8} = \dfrac{\square}{24}$ 25) $\dfrac{\square}{3} = \dfrac{7}{15}$

26) $\dfrac{\square}{42} = \dfrac{5}{7}$ 27) $\dfrac{\square}{12} = \dfrac{7}{9}$ 28) $\dfrac{27}{\square} = \dfrac{3}{5}$

29)   There are 620 3d box nails in a pound. Frank bought a 4-oz box of 3d box nails. How many nails were in the box?

30)   To color mortar a bright red, requires 5# of Mineral Turkey Red for each 9 bags of cement. If a cubic yard of mortar takes 6 bags of cement, how many pounds of Mineral Turkey Red are needed to color one cubic yard of mortar?

31)   The Snickelfritz family traveled for 300 miles and it took them 7 hours. At that rate, how far will they go in 9 hours? (round your answer off to the nearest mile)

32)   In surveying there are many interesting units of measurement. If 80 Gunter's chains equals 320 rods, how many rods are in 16 Gunter's chains?

33)   If Jane drives 208 miles in four hours, how far will she drive, at the same rate if she drives for 5 1/2 hours?

34)   There is a spring that has a pipe running from it and some people get water from it. If you hold a 10-quart pail under the pipe, it takes 3 minutes to fill it. At that rate, how long will it take to fill a 5-gallon pail with water? How many gallons of water will flow out of the pipe in 33 minutes? How many gallons of water comes out of the pipe in a day? (24 hours)

35)   18 U.S. dollars are equal to 25 Canadian dollars. If you order something on the Internet from Canada that costs $120 Canadian, how much should you pay in U.S. currency? If you are selling something to someone in Canada and the price you want is $120 U.S., what would your customer have to pay in Canadian currency? (Round off to the nearest cent)

36)   Aluminum is found in two minerals, Bauxite and Corundum. If 50 lbs. of Bauxite yields 37 pounds of Aluminum and 100 pounds of Corundum yields 53 pounds of Aluminum, how much Aluminum would a ton of each of the above yield? How much of each of these minerals would be needed to yield a ton of Aluminum?

37)   If Joe uses 2 tsp. of drink mix to make an 8 oz glass of drink, how much drink mix will he need to make one gallon of drink? How much mix is needed to make one quart of drink?