

# MATH RESCUE

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**ANSWERS TO FINAL TEST**

Label answers properly.

$$\begin{array}{r} 1) \quad 6 \text{ pounds } 6 \text{ ounces} \\ - \quad 4 \text{ pounds } 8 \text{ ounces} \\ \hline 1 \text{ pound } 14 \text{ ounces} \end{array}$$

$$\begin{array}{r} 2) \quad 6 \text{ gal. } 3 \text{ qt. } 1 \text{ pt.} \\ \quad \quad \quad \times 5 \\ \hline 34 \text{ gal. } 1 \text{ qt. } 1 \text{ pt.} \end{array}$$

$$3) \quad 9 \overline{) 38 \text{ hrs. } 15 \text{ min.}} \quad \underline{4 \text{ hrs. } 15 \text{ min.}}$$

$$4) \quad 30 \text{ min. } \overline{) 390 \text{ gal.}} \quad \underline{13 \text{ gal. per min.}}$$

$$5) \quad 2 \frac{5}{8} \div \frac{4}{5} = 3 \frac{9}{32}$$

$$6) \quad \frac{7}{16} \div 3 \frac{1}{2} = \frac{1}{8}$$

$$7) \quad 2 \frac{5}{16} \div 8 = \frac{37}{128}$$

$$8) \quad \frac{3}{4} \text{ of } \frac{1}{2} \text{ is what? } \frac{3}{8} \quad 9) \quad 3 \text{ is what part of } 8? \frac{3}{8} \quad 10) \quad 9 \text{ is } \frac{1}{4} \text{ of what? } 36$$

11) Trudy earned some money from baby-sitting. She always puts  $\frac{3}{8}$  of everything she earns into her savings account. If she put \$9.36 in her savings account, how much did she earn from baby-sitting? **\$24.96**

12) This recipe makes 3 cups of pickled beets. Change it to make 1 gal. of pickled beets.

2 lbs. sliced beets **10  $\frac{2}{3}$**

$1\frac{1}{2}$  cups sugar **8**

$\frac{3}{4}$  cups vinegar **4**

3 cinnamon sticks **16**



13) Karl's driveway is  $\frac{2}{3}$  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? **8 miles**

14) You can buy 3" drum sander rolls from I.A. Co., **52 yards for \$49.95**, or from the S.C. Co., 58 ft for 27.95. Which is the better buy?

15) Which is a better buy? Dried milk, **9.6 oz. for \$3.07**, or 18 oz. for 7.09?

## FINAL TEST (Page 2)

16) 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?

**3 1/3 pounds**

17) The Snickelfritz family traveled 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.)

**386 miles**

18) Sharon visited her parents who live 325 miles away and found that it took 13 gallons of gasoline to make the trip. She took a different way home to visit a friend that she hadn't seen in a long time. When she got home, Sharon found that it took 15 gallons of gasoline to get home. How many miles did she travel on her way home? **375 miles** How far out of the way was that? **50 miles**

19) In May of 1927, Charles Lindbergh made a non-stop flight across the Atlantic, a distance of 3,685 miles. It took him  $33\frac{1}{3}$  hours to make the trip. What was his average speed in miles per hour? **110 11/20 mi. per hr.**

20) When they retired, George and Edna Swanson sold their larger home valued at \$132,000 and moved a block away to a smaller home valued at \$78,000. The move saved them \$486 a year in property taxes. How much would they have paid in their larger home? **\$1188** How much do they pay in their present home? **\$702**

Put this fraction in lowest terms, and tell what greatest common factor was used.

21)  $\frac{104}{325}$  \_\_\_\_\_ =  $\frac{8}{25}$  GCF is **13**

Change fractions to decimals and decimals to fractions.

22)  $3/8 = .375$       23)  $.14 = 7/50$       24)  $.24 = 6/25$

25)  $.75 = 3/4$       26)  $1/8 = .125$       27)  $3/5 = .6$

Change to fractions and put in lowest terms.

28)  $.1875 = 3/16$       29)  $.875 = 7/8$       30)  $.76 = 19/25$

### FINAL TEST (Page 3)

Change to decimals.

31)  $9/16 = .5625$       32)  $5/8 = .625$       33)  $9/25 = .36$

Change from decimals to percent.

34)  $.14 = 14\%$       35)  $.86 = 86\%$       36)  $.05 = 5\%$       37)  $.124 = 12.5\%$

Change these fractions to percent.

38)  $3/25 = 12\%$       39)  $4/5 = 80\%$       40)  $3/50 = 6\%$       41)  $3/20 = 15\%$

42) What is 40% of 40? **16**      43) 13% of 200 is what? **26**

44) What percent of 20 is 5? **25%**      45) 3 is what percent of 600? **.5%**

46) 40 is what percent of 800? **5%**      47) 60 is what percent of 80? **75%**

48) Julio Schwartz sells snitzelbanks on commission. They sell for \$270 each and he sold 8 of them last week. If he gets a commission of 42%, how much did he make last week? **\$907.20**

49) If you had \$752 in a savings account that pays 4% interest per year, how much interest would you earn in two years? **\$60.16** How much money would you have in the account at the end of two years? **\$812.16**

50) If a husband and wife have a savings of \$237,000 when they retire, and they earn an average of 7.6% in annual interest, how much will they receive in interest each year? **\$18,012**

51) A farmer borrowed \$12,600 to put his crops in. He took the loan out April 15<sup>th</sup> and repaid it August 15<sup>th</sup>. If the rate of interest was 9%, how much interest should he pay on the loan? **\$378** What would be the total amount of the payment in August? **\$12,978**

52) How much interest will be paid at the rate of 8% on savings of \$4000 for 4 years, if you figure simple interest? **\$1280** What would it yield if the interest was compounded every year? **\$1441.96** Every six months? **\$1474.28**

## FINAL TEST (Page 4)

Change these decimals to fractions in simplest form.

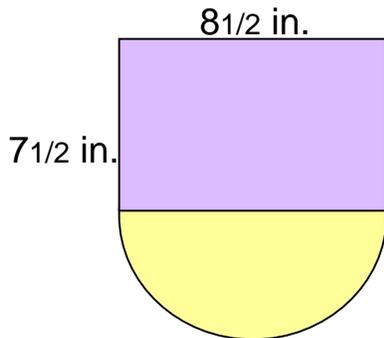
- 53) .1333...  $\frac{2}{15}$     54) .3181818...  $\frac{7}{22}$     55) .2777...  $\frac{5}{18}$

56) Use the rule of 72 to calculate the value of the following investments.

If a grandparent puts \$2000 in a tax-exempt investment, yielding 6%, for their grandchild when it is born, how much would it be worth at age 24? **\$8000**

Suppose the grandchild decided to leave the money in the account until age 60 and use it toward retirement. How much would be in it at that time? **\$64,000**

57) Find the areas indicated.



The purple area is  **$63 \frac{3}{4}$  sq. in.**

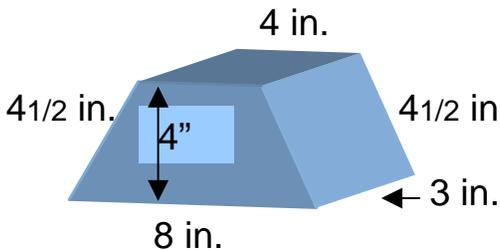
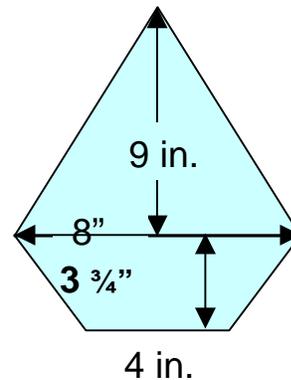
The yellow half circle area is  **$28 \frac{43}{112}$  sq. in.**

The total area is  **$92 \frac{15}{112}$  sq. in.**

58) The area of the triangle is **36 sq. in.**

59) The area of the trapezoid is  **$22 \frac{1}{2}$  sq. in.**

60) The total area is  **$58 \frac{1}{2}$  sq. in.**



61) Top area **12 sq. in.**

62) Bottom area **24 sq. in.**

63) Left side area  **$13 \frac{1}{2}$  sq. in.**

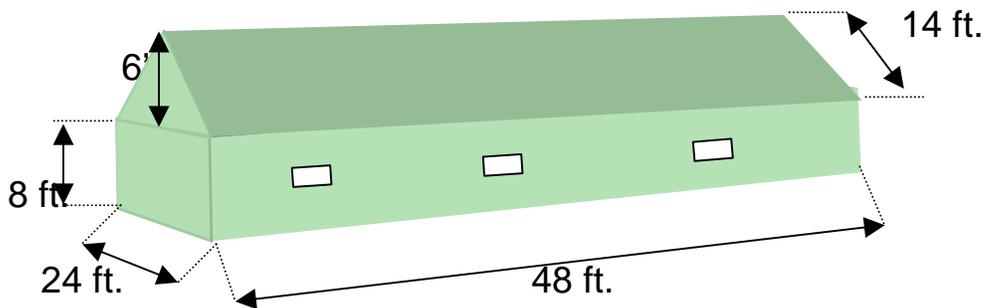
64) Right side area  **$13 \frac{1}{2}$  sq. in.**

65) Front area **24 sq. in.**

66) Back area **24 sq. in.**

67) Total area **111 sq. in.**

## FINAL TEST (Page 5)



68) The owner of this building wants to paint it. In order to do that, he must find out how much paint he needs. The amount of paint he will need will depend on the area that is to be painted. Find the area of this building. (He will not be painting the roof.) **1296 sq. ft.** If the paint he chooses covers 450 square feet per gallon, how many gallons must he buy? **3 gal.** If paint costs \$18.50 per gallon, how much will it cost to paint the building? **\$55.50** When the owner finished painting, he realized that he needed to give it two coats of paint so he bought enough to give it another coat. What was the cost to do two coats? **\$111.00**

69) The owner of this building decided that the roof needed to be replaced as well. What is the area of the roof? **1344 sq. ft.** If shingles cost \$.42 per square foot, how much will it cost to shingle this building? **\$564.48**

70) This building has a cement floor and the owner decided to seal the floor to make it easier to clean. What is the area of the floor? **1152 sq. ft.** If the sealer he chooses costs \$14.50 per gallon and covers 200 square feet per gallon, how many gallons will he need? **6 gal.** How much will it cost him to seal the floor?  
**6 gal.**