Math 61- Final Exam Study Guide

Name____

These Basic Mathematics problems are representative of what you might exprect to find on the Final Exam. The Final Exam problems will be similar, but not exactly the same. Use this study guide to review concepts you already know and identify concepts you may need help with.

Solve.				
	1) Lew is installing an invisible fence in his back yard which measures 111 feet by 67 feet by 85 feet by 93 feet. How many feet of wiring is needed to enclose his yard?	1)		
	2) Isabelle went shopping for holiday presents for her family. She spent \$259 on Monday, \$125 on Tuesday, and \$266 on Wednesday. What is the total amount of money that she spent on gifts?	2)		
Subtra	ct. Check by adding.			
	3) 8030 <u>- 3498</u>	3)		
Solve.				
	4) The population of Graham County is 727,733. The population of Richfield County is 241,104. The population of Cameron County is 152,528. How much greater is the population of Graham County than Cameron County?	4)		
	5) Find 48 subtracted from 63.	5)		
Round the whole number to the given place value.				
	6) 65,998 to the nearest ten	6)		
Solve t	 he problem by estimating. 7) Andy wants to buy a refrigerator for \$799, a stove for \$359, and a dishwasher for \$249. Round each cost to the nearest hundred to estimate the total cost. 	7)		
Multiply.				
1	8) 1112 × 48	8)		
Solve.	9) A company rents a mid-size car at \$289 per month for eight months. What is the cost for the car rental during this time?	9)		
Divide	(10) 5)265	10)		
1	11) 3446 ÷ 6	11)		

	12)		
12) One ficket won a prize of \$7,776,000. The winning ficket was purchased by 24 people who had pooled their money. Find how many dollars each person receives if they each receive an equal share.	12)		
Find the average of the list of numbers.	13)		
10, 00, 02, 00, 00, 00, 01			
Simplify.			
14) 29 + 30 • 24	14)		
15) $2[3^2 + 5(7 + 8)]$	15)		
Write the mixed number as an improper fraction.			
16) $4\frac{3}{7}$	16)		
Write the improper fraction as a mixed or whole number.			
$17)\frac{50}{51}$	17)		
· 11	,		
Find the prime factorization of the number. Write any repeated factors using exponents.			
18) 84	18)		
Write the fraction in simplest form.			
$19) \frac{70}{90}$	19)		
Determine whether the pair of fractions is equivalent.			
20) $\frac{3}{4}$ and $\frac{18}{36}$	20)		
Multiply. Write the answer in simplest form.			
$(21)\frac{1}{2}\cdot\frac{4}{9}$	21)		
22 2 5 7	22)		
$22) 2 \cdot 5 \frac{12}{12}$	22)		
23) $4\frac{2}{7} \cdot 4\frac{2}{3}$	23)		
Divide. Write the answer in simplest form.			
24) $\frac{3}{7} \div \frac{3}{8}$	24)		
/ 0			

25)
$$4\frac{3}{8} + \frac{1}{8}$$
25)Solve. Write the answer in simplest form.26) A rectangular flower bed in front of a building measures $12\frac{3}{5}$ feet by $2\frac{5}{7}$ feet. What is the total area of the flower bed? Hint: The area of a rectangle is the product of the length times the width.26)Solve.27) Toni needs to cut a $4\frac{2}{3}$ - foot board into 5 equal pieces. How long should each piece be?27)Subtract and simplify.28) $\frac{25}{42} - \frac{7}{42}$ 28)28) $\frac{25}{42} - \frac{7}{42}$ 29)29)Write the faction as an equivalent fraction with the given denominator.30)30) $\frac{1}{3} = \frac{1}{30}$ 31)Subtract and simplify.32) $\frac{7}{9} - \frac{112}{12}$ 32)30) $\frac{17\frac{4}{7}}{\frac{-5}{7}}$ 32)Insert < or > to form a true statement.34) $\frac{1}{\frac{1}{8}} - \frac{1}{3}$ Subtract or operations to simplify the expression.35)

Solve. 36) A recipe for cake calls for $3\frac{7}{8}$ cups of brown sugar. If you are only making a half-batch, 36) how much brown sugar would you need? Insert $<_{\prime}>_{\prime}$ or = to form a true statement. 37) _____ 37) 914.902 914.920 Round the decimal to the given place value. 38) 66.9518, nearest hundredth 38) Write the decimal as a fraction or mixed number in simplest form. 39) _____ 39) 0.122 40) _____ 40) 12.4 Add. 41) 93.24 + 74.67 + 36.634 41) _____ Subtract. 42) 16.7 - 13.83 42) Multiply. 43) 0.0303 × 6.06 43) 44) 0.8969 × 1000 44) Divide. 45) 6.5)11.05 45) _____ 46) _____ 46) 8.52 ÷ 100 Estimate the quotient by first rounding each number. 47) 98.32 ÷ 51.3 47) Write the fraction as a decimal. If necessary, use repeating decimal notation. 48) $\frac{1}{20}$ 48) _____ Arrange the list of numbers in order from smallest to largest. $(49) \frac{1}{2}, \frac{3}{4}, \frac{2}{3}, 0.95$ 49) _____ Write the ratio as a ratio of whole numbers using fractional notation. Write the fraction in simplest form.

50) \$60 to \$21 50)

Write each ratio or rate as a fraction in simplest form.				
51) 16 inches of rain in 34 days	51)			
Write the rate as a unit rate				
52) 657 miles in 0 hours	52)			
52) 657 miles in 9 hours	52)			
Find the unit price.				
53) Find which is the better buy (lower cost per ounce) by finding each unit price rounded to	53)			
three decimal places if necessary. Assume that different sizes of the same brand are being	/			
compared.				
Shampoo:				
\$1.64 for 8 ounces				
\$3.28 for 16 ounces				
40.20 for 10 ounces				
Determine whether the proportion is true or false.				
$(54) \frac{6}{3} = \frac{2}{3}$	54)			
18 6	,			
For the proportion, find the unknown number n.				
n 30				
55) $\frac{1}{7} = \frac{30}{42}$	55)			
7 12				
$(56) \frac{16}{-4}$	56)			
48 - n				
Solve				
57) Crant worked 6 hours and nacked 94 carters of books. At this rate, how many carters can	57)			
57) Grant worked 6 hours and packed 94 cartors of books. At this rate, now many cartors can	57)			
ne pack in 10 hours?				
58) The standard dose of medicine for a dog is 5 grams for every 15 pounds of body weight.	58)			
What is the standard dose for a dog that weighs 80 pounds?				
Write the percent as a decimal.				
59) 15%	59)			
	,			
Write the decimal as a percent.				
60) 0.014	60)			
Write the percent as a fraction or mixed number in simplest form.				
61) 5.5%	61)			
	/			
Write the fraction or mixed number as a percent.				
$62)\frac{49}{22}$	62)			
Ý 90	/			

	$63)\frac{2}{3}$	63)
Solve.	64) What number is 28% of 130?	64)
	65) 0.9% of what number is 16.2?	65)
	66) 560 is what percent of 700?	66)
	67) The Smale family paid 21% of the purchase price of a \$143,000 home as a down payment. Determine the amount of the down payment.	67)
	68) One day 24 teachers were sick with the flu. If this were 75% of the total number of teachers, how many teachers were there altogether?	68)
Solve.	Round to the nearest tenth, if necessary.69) A company increased the number of its employees from 560 to 635. What was the percent increase in employees?	69)
	70) In the past ten years, the population of a city decreased from 235,000 to 220,000. Find the percent decrease.	70)
Solve.	71) A \$2100 designer dress is on sale at 15% off. Find the sale price.	71)
	72) A sales representative is paid a commission rate of 2.3%. Find her commission if she sold \$173,470 worth of goods last month.	72)

Answer Key Testname: MATH 61 - PRACTICE FOR FINAL

1) 356 feet 2) \$650 3) 4532 4) 575,205 5) 15 6) 66,000 7) \$1400 8) 53,376 9) \$2312 10) 53 11) 574 R 2 12) \$324,000 13) 46 14) 749 15) 168 16) $\frac{31}{7}$ 17) $4\frac{6}{11}$ 18) 2² • 3 • 7 19) 7<u>9</u> 20) not equivalent 21) $\frac{4}{27}$ 22) $11\frac{1}{6}$ 23) 20 24) $1\frac{1}{7}$ 25) 35 26) 36 square feet 27) $\frac{14}{15}$ ft 28) $\frac{3}{7}$ 29) 40 $30) \frac{20}{30}$ 31) $\frac{3}{8}$ 32) $\frac{25}{36}$ 33) $16\frac{6}{7}$ 34) <

Answer Key Testname: MATH 61 - PRACTICE FOR FINAL

35) $\frac{27}{2}$ 36) $1\frac{15}{16}$ cups 37) < 38) 66.95 39) $\frac{61}{500}$ 40) $12\frac{2}{5}$ 41) 204.544 42) 2.87 43) 0.183618 44) 896.9 45) 1.7 46) 0.0852 47) 2 48) 0.05 $49)\,\frac{1}{2},\,\frac{2}{3},\,\frac{3}{4},\,0.95$ 50) $\frac{20}{7}$ 51) $\frac{8 \text{ in.}}{17 \text{ days}}$ 52) 73 miles/hour 53) Both cost the same per ounce. 54) True 55) 5 56) 12 57) $156\frac{2}{3}$ cartons 58) $26\frac{2}{3}$ g 59) 0.15 60) 1.4% 61) $\frac{11}{200}$ 62) $54\frac{4}{9}\%$ 63) $66\frac{2}{3}\%$ 64) 36.4 65) 1800 66) 80% 67) \$30,030 68) 32 teachers 69) 13.4%

Answer Key Testname: MATH 61 - PRACTICE FOR FINAL

70) 6.4% 71) \$1785.00 72) \$3989.81