MAT 0002 Final Exam Fall 2000 Name _____

1) Round 6,849 to the nearest hundred. 1) _____

2) Suppose that 4 out of 5 people prefer Brand X to Brand Y. What percent of the people prefer Brand X? 2) _____

3) What is 20% of 60? 3) _____

4) 50% of what number is 40? 4) _____

5) Tom received the following test scores: 88%, 94%, 96%, 82% and 90% Find the average test score. 5) _____

Write the following expressions in exponential form (i.e. using exponents). Do NOT multiply out the problem.

6) $2 \times 2 \times 2 \times 2 \times 3 \times 3 \times 5 \times 5 \times 5$ 6) _____

7) List ALL of the Factors of 48 7) _____

8) Find the Least Common Multiple (LCM) of 4, 6, 10 and 15 8) _____

9) A TV regularly sells for $450. The store has a 20% off sale on all items in the store. Find the total cost of the TV, including 7% sales tax. 9) _____

10) Round 5.6788 to the nearest thousandth 10) _____

11) Eric bought a shirt that regularly sells for $24. A sign on the rack says 20% off. Find the sale price of the shirt. 11) _____

12) Simplify Completely: $\frac{66}{308}$ 12) _____

Perform the Indicated Operations. Simplify Your Answers When Possible.

13) $3.475 + 2.4 + 5.702$

14) $8.001 - 5.28$

15) $2\frac{1}{5} \bullet 3\frac{1}{2}$

16) $4\frac{5}{6} + 2\frac{1}{8}$

17) $8\frac{2}{7} \div 3\frac{1}{7}$

18) $8\frac{4}{5} - 5\frac{2}{3}$

19) $\frac{1}{5} + \frac{1}{3} \bullet \frac{1}{4}$

20) $15\frac{1}{4} - 6\frac{3}{5}$

21)
$$\begin{array}{r} 56,894 \\ 74,579 \\ +\ 68,658 \\ \hline \end{array}$$

22)
$$\begin{array}{r} 81,392 \\ -\ 54,487 \\ \hline \end{array}$$

23)
$$\begin{array}{r} 896 \\ \times\ 759 \\ \hline \end{array}$$

24) $62\overline{)75,210}$

25) On a map, 1 inch represents 20 miles. How many miles would $3\frac{1}{2}$ inches represent?

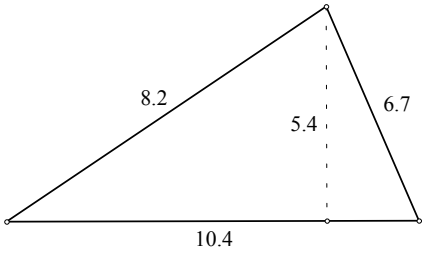
26) David makes $12.50 per hour. He gets time-and-a-half for overtime (hours over 40 hours per week). If he works 52 hours in a week, find his gross pay.

27) Joe paid $1.00 for a 12 ounce can of Coke out of the vending machine. Find the cost per ounce.

28) Bill's truck can travel 487 miles on a tank of gasoline. If the tank holds 22 gals. of gasoline, how many miles per gallon does it average? (round to the nearest tenth of a mpg).

29) Solve the proportion: $\frac{3}{7} = \frac{N}{12}$ 29) _____

30) Find the PERIMETER of the triangle below. All units are in cm. 30) _____



31) Find the AREA of the triangle above. All units are in cm. 31) _____

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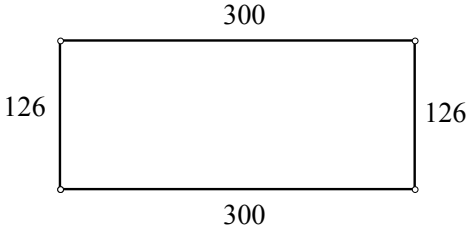
32) Find the PERIMETER of the rectangle below. All units are in cm. 32) _____



33) Find the AREA of the rectangle above. All units are in cm. 33) _____

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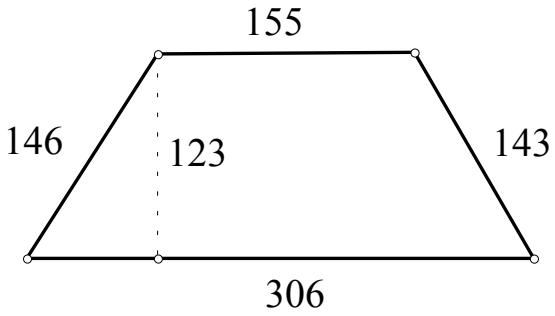
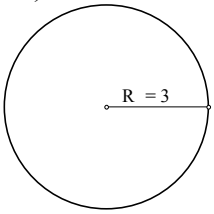
34) Find the PERIMETER of the trapezoid below. All units are in cm. 34) _____



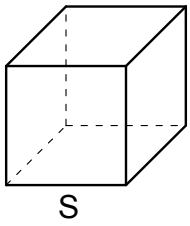
35) Find the AREA of the trapezoid above. All units are in cm. 35) _____

36) Find the CIRCUMFERENCE of the circle below. All units are in cm. 36) _____



37) Find the AREA of the circle above. All units are in cm. 37) _____

38) Find the VOLUME of the Cube below. All sides are 3 feet in length. 38) _____



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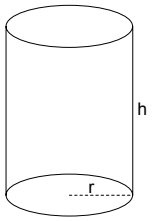
39) Find the VOLUME of the Cylinder below. The radius is 4 inches and the height is 10 inches.



Fill in the following table with the appropriate conversions

	FRACTION Reduce if possible	DECIMAL	PERCENT
40)	$\frac{3}{4}$		
41)		0.16	
42)			2.5%

Perform The Indicated Operations

43) $-6-4=$ 43) _____

44) $(3)^4=$ 44) _____

45) $(-2)(-3)(-4)=$ 45) _____

46) $\frac{-18}{-6}=$ 46) _____

47) $4-5\cdot 3=$ 47) _____

48) $4+(-7)=$ 48) _____

49) $10-(-7)=$ 49) _____

50) $(4-6)^2+3^2-2\cdot 4=$ 50) _____