Name: _____
Date: _____

Mat 187A Final Exam
Sections 1.1 through 3.1

1. (3 points) Write the following number in expanded form.
   108,253

2. (3 points) Write the word name for the number 1,005,702.

3. (4 points) Use the following table to answer the questions.

Estimated population of four states from 1900 to 1990 (in millions) Source: U.S. Bureau of the Census										
State	1900	1910	1920	1930	1940	1950	1960	1970	1980	1990
California	1	2	3	6	7	11	16	20	24	30
Florida	1	1	1	1	2	3	5	7	10	13
Illinois	5	5	6	8	8	9	10	11	11	11
New York	7	9	10	13	13	15	17	18	18	18

   a) What was the estimated population of Florida in 1950?

   b) What is the estimate of how much the population of California has grown between 1920 and 1950?

4. (3 points) Add.

$$\begin{array}{r} 816{,}608 \\ 94{,}314 \\ +\ 1{,}763{,}275 \\ \hline \end{array}$$

5. (3 points) Subtract.

$$\begin{array}{r} 360{,}092 \\ -\ 279{,}845 \\ \hline \end{array}$$

6. (3 points) Multiply.

$$\begin{array}{r} 4163 \\ \times\ 75 \\ \hline \end{array}$$

7. (3 points) Divide. $13\overline{)9236}$

8. (9 points) Work each problem using the correct order of operations.

a) $98-14^2\div7\times3$

b) $3\times5+7\times(8-5)-5\times2$

c) $\left(\frac{1}{2}+\frac{2}{3}\right)-\frac{1}{4}+\left(\frac{2}{3}\right)^2-\left(\frac{3}{5}\right)^0$

9. (2 points) In 1993, the countries included in the Far East and Oceania utilized 15,817 barrels of petroleum per day. Round this value to the nearest hundred.

10. (3 points) Larry and Mary are planning an outdoor wedding by the ocean. There is a beautiful meadow that is 35 feet wide and 72 feet long. Estimate the number of square feet in the meadow.

11. (3 points) Garcia wants to determine the miles-per-gallon rating of his Ford Contour. He filled the tank when the odometer read 36,339 miles. He drove the car for a week. The odometer then read 36,899 miles and the tank required 16 gallons to be filled. How many miles per gallon did Garcia's car achieve?

12. (3 points) Reduce to lowest terms. $\frac{28}{42}$

13. (3 points) Find the missing number. $\frac{26}{39}=\frac{2}{?}$

14. (3 points) Write as a mixed number. $\frac{17}{7}$

15. (3 points) Write as an improper fraction. $3\frac{5}{6}$

16. (3 points) Multiply. $6\frac{2}{5}\times\frac{1}{4}$

17. (3 points) Multiply. $\frac{5}{16}\times 8$

18. (3 points) Multiply. $\frac{10}{13}\times\frac{26}{15}\times\frac{2}{3}$

19. (3 points) The propeller on the Ipswich River Cruise Boat turns 420 revolutions per minute. How fast would it turn at $\frac{5}{6}$ of that speed?

20. (3 points) Divide. $\dfrac{6\frac{3}{4}}{3\frac{1}{2}}$

21. (3 points) Divide. $2\frac{3}{8}\div 5\frac{3}{7}$

22. (3 points) Add.

$$\begin{array}{r} 34\frac{1}{20} \\ +\ 45\frac{8}{15} \\ \hline \end{array}$$

23. (3 points) Subtract.

$$\begin{array}{r} 7\frac{3}{8} \\ -\ 2\frac{2}{3} \\ \hline \end{array}$$

24. (3 points) Nancy wonders if a tree in her front yard will grow to be 7 feet tall. When the tree was planted, it was $2\frac{2}{3}$ feet above the ground in height. It grew $1\frac{3}{4}$ feet the first year after being planted. How many more feet does it need to grow to reach a height of 7 feet?

25. (3 points) Write a word name for the decimal. 24.00007

26. (3 points) Write two thousand and thirty six ten-thousandths in decimal notation.

27. (3 points) Write the fraction as a decimal. $84\frac{7}{100}$

28. (3 points) Write 5.006 in fractional notation.

29. (2 points) Fill in the blank with one of the symbols <, =, >. $\frac{5}{1000}$ _____ 0.0005

30. (3 points) Arrange the set of decimals from smallest to largest.
10.02, 10.002, 10.001, 10.018, 10.0019

31. (3 points) Round the decimal to the nearest tenth. 473.2418

32. (3 points) Round the amount to the nearest cent. $294.5253

33. (3 points) Add. $432.51 + 14.08 + 39 + 86.07$

34. (3 points) Subtract. $4.3 - 0.59482$

35. (3 points) Write $\frac{3}{4}$ as an equivalent decimal.