Name:

Test #2 – Fractions, Decimals & §1.7-2.3 Pre-Algebra @ Gavilan Spring 2002

Instructions: Write your name before you begin the test. Show the work to each problem in a clear and organized manner and box your final answer. If you don't show your work on the exam, please indicate where I might find the work, and label it clearly. If there is no work shown for a problem it will be entirely correct or entirely incorrect! Word problems must show all work in the manner that has been shown in class to receive full credit – an answer only may not receive full credit. Work carefully. Good Luck!!

1. Reduce ${}^{18}\!/_{54}$ to lowest terms. Use either the GCF or prime factorization method and show all of your work.

2. Find the LCD for $\frac{1}{9}$ and $\frac{1}{21}$. Use either prime factorization or LCM and show all of your work.

3. Build the higher term.
$$\frac{2}{3} = \frac{1}{12}$$
 so $=$

Instructions: For problems 4-10, do the indicated operation and reduce and/or change to a mixed number if necessary.

4. Add $\frac{13}{54} + \frac{5}{54} =$

5. Subtract $\frac{10}{21} - \frac{1}{9} =$

6. Multiply
$$\frac{4}{7} \cdot \frac{1}{16} =$$

7. Divide
$$\frac{3}{8} \div \frac{4}{15} =$$

8. Add
$$1^{1}/_{2} + 2^{1}/_{3} + 5/_{12} =$$

9. Divide
$$2^{1}/_{3} \div 1^{1}/_{6} =$$

10. Multiply $1^{3}/_{4} \cdot 2$

Instructions: Problems 11-14 involve integers and absolute values. If you expect full credit a problem that does not involve a definition, then you should show all work as it has been demonstrated in class.

11. Simplify a) |-11| =
b) |21| =
12. Compare using <,> or = -|-18| | 18|
13. Add a) -7 + 3 =
b) -9 + -8
14. Change to addition and add
a) -8 - 3 =

b) 10 - (-7) =

Instructions: Problems 15-17 exhibit order of operations. Show you work in a neat, logical order. Complete each problem until you get a single numeric answer.

15. Simplify $3 + 9 \div 3$

16. Simplify $47 - 4[3^2 \div 3 + 1] =$

17. Evaluate when x = 4 and y = 1

$$\frac{(x + y)^2}{16 - x^2}$$

Instructions: Follow the instructions on each of the following exponent and translation problems.

- 18. Evaluate a) 7^0
 - b) 10^5 c) 1^5
- 19. Translate each of the following. Define a variable at the beginning.
 - a) The sum of 15 and twice a number
 - b) The difference of a number and 15
 - c) A number subtracted from 29
 - d) The quotient of 107 and a number
 - e) The product of 15 and a number, added to 12

Instructions: In problems 20-24 give the appropriate decimal answer. Show your work.

 $^{2}/_{5}$ 20. Convert to a decimal a) $^{1}/_{3}$ b) Divide 21. a) $12.89 \div 100$ b) $2.05 \div 0.5$ 22. Multiply a) (0.897)(1000) b) 0.08 • 0.2

- 23. Add 27 5.89
- 24. Subtract 18.1 + 199.01