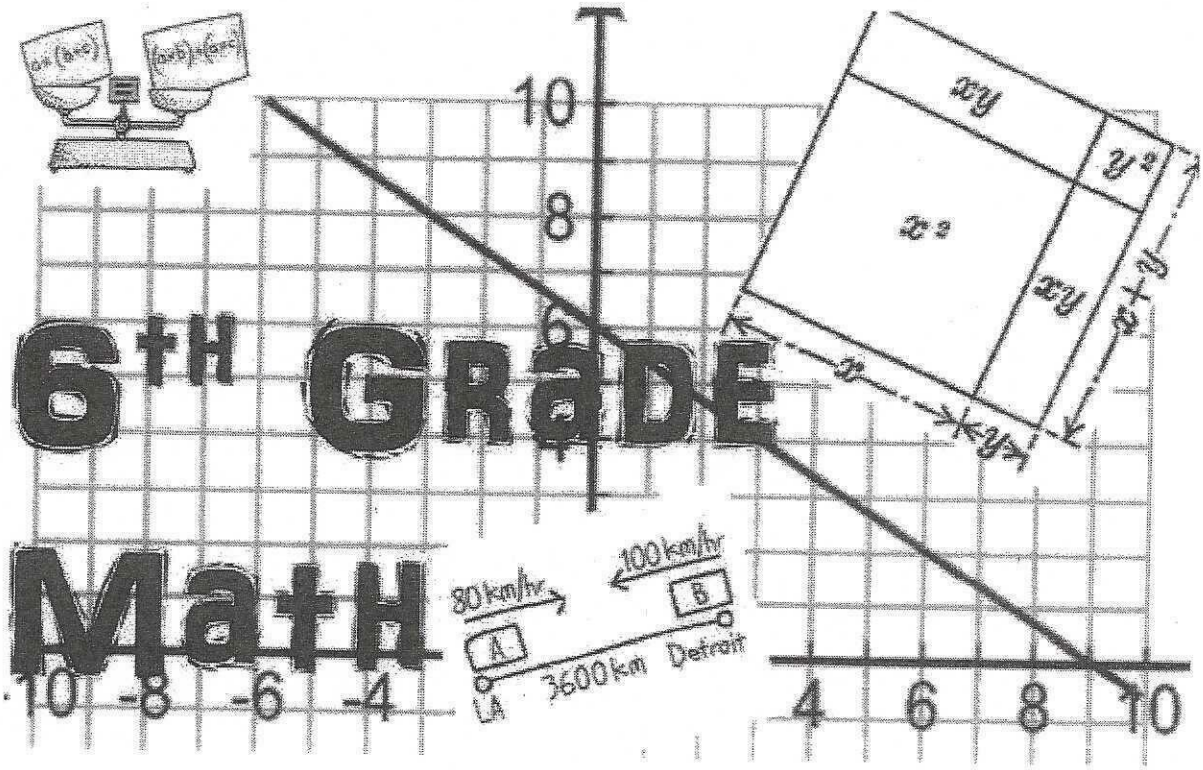
Math Entering

6th grade

Students must show work.

Calculators are NOT permitted for this assignment



Name _____

Addition
Find the sum of the two numbers in each problem.
Show all work.

Example:

$$\begin{array}{r} {\scriptstyle 1\ \ 1\ \ \ } \\ 448 \\ +\ 188 \\ \hline 636 \end{array}$$

1. $\begin{array}{r} 652 \\ +\ 345 \end{array}$

2. $\begin{array}{r} 203 \\ +\ 525 \end{array}$

3. $\begin{array}{r} 726 \\ +\ 268 \end{array}$

Decimal Addition:
Remember to line up the decimals before adding. Bring the decimal straight down in your answer.

4. $\begin{array}{r} 7.75 \\ +\ 1.46 \end{array}$

5. $51.4 + 2.86$

6. $.1274 + 8.25$

Subtraction
Find the difference between the two numbers in each problem. Show all work.

Example:

$$\begin{array}{r} {\scriptstyle 3\ 13\ \ } \\ 7\ \not{4}\ \not{3} \\ 2\ 1\ 8 \\ \hline 5\ 2\ 5 \end{array}$$

7. $\begin{array}{r} 407 \\ -\ 198 \end{array}$

8. $\begin{array}{r} 7,007 \\ -2,426 \end{array}$

9. $\begin{array}{r} 3,414 \\ -1,218 \end{array}$

Decimal Subtraction:
Remember to line up the decimals before subtracting. Bring the decimal straight down in your answer.

10. $\begin{array}{r} 338.38 \\ -\ 149.27 \end{array}$

11. $80.401 - 44.23$

12. $75.89 - 9.4$

Multiplication
Find the product of the two numbers in each problem. Show all work.

Example:

$$\begin{array}{r} 54 \\ \times\ 16 \\ \hline 324 \\ +540 \\ \hline 864 \end{array}$$

13.
$$\begin{array}{r} 65 \\ \times\ 4 \\ \hline \end{array}$$

14.
$$\begin{array}{r} 42 \\ \times\ 8 \\ \hline \end{array}$$

15.
$$\begin{array}{r} 84 \\ \times\ 39 \\ \hline \end{array}$$

Decimal Multiplication:
Multiply as you would with whole numbers. Count the decimal places in each factor. The product (answer) has the same number of decimal places.

16.
$$\begin{array}{r} .13 \\ \times\ 70 \\ \hline \end{array}$$

17.
$$\begin{array}{r} 5.1 \\ \times\ 2 \\ \hline \end{array}$$

18.
$$\begin{array}{r} .108 \\ \times\ 2.5 \\ \hline \end{array}$$

Division
Find the quotient in each problem. If there is a remainder, state the remainders as R=___. Show all work. Feel free to use a separate sheet of paper.

19. $7\overline{)591}$

20. $12\overline{)264}$

21. $43\overline{)2815}$

Decimal Division:

If the divisor (outside number) is a decimal, you must move the decimal point (using multiplication) to the right until it becomes a whole number. Then, move the decimal in the dividend (inside number) the same number of times. Divide to find your answer (quotient). Then, move the decimal straight up from the dividend to the quotient. Remember, no remainders.

quotient
divisor)*dividend*

22. $3\overline{)31.8}$

23. $.5\overline{)7.45}$

24. $.12\overline{)12.24}$

Rounding
Underline the given place value. Look to the right. If this digit is 5 or greater, increase the underlined digit by 1. If the digit to the right is less than 5, keep the underlined digit the same.

Round to the nearest...
hundredth
0.547 0.55

Round to the nearest....

25. tenth
0.3479

26. hundredth
0.7553

27. whole number
3.268

28. ten
162.21

29. thousandth
0.0036

30. hundred
990.54

Compare using <, >, or =
1.2 ◯ 1.20 1.2 = 1.20

Compare the decimals.

31. 0.205 ◯ 0.21

32. 1.03 ◯ 0.03

33. 0.04 ◯ 0.050

34. 0.1 ◯ 0.1000

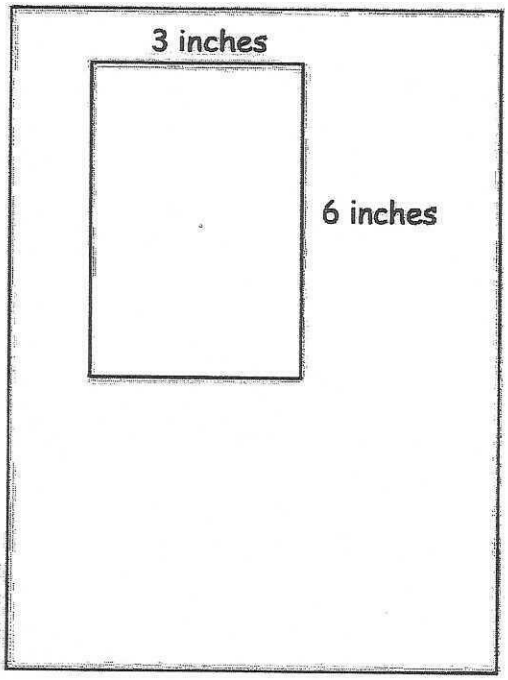
35. 0.52 ◯ 0.500

36. 0.41 ◯ 0.405

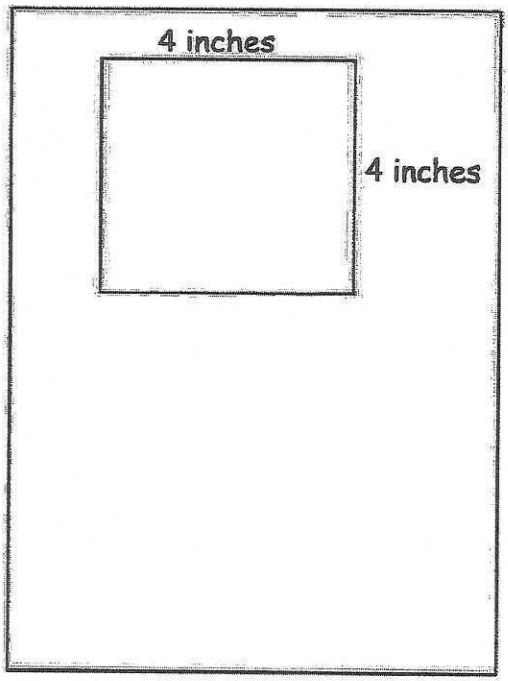
Area and Volume
The number of square units needed to cover a region is the area. (square units)
The amount of space inside a solid figure is the volume of the figure. (cubic units)

Formulas
Area of a rectangle:
$l \times w$
Volume of a rectangular prism:
$l \times w \times h$

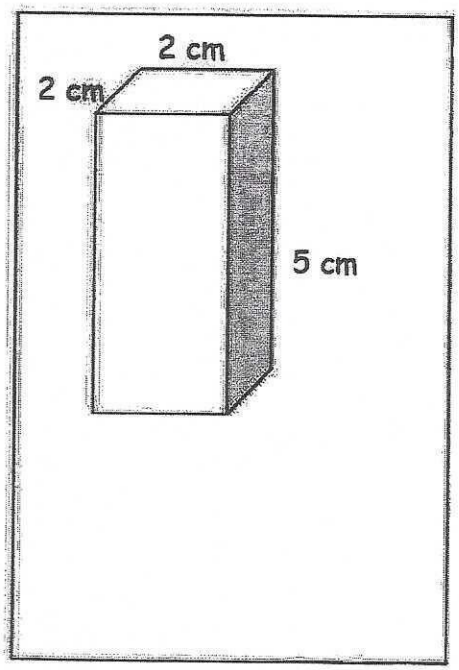
54. Find the area of the figure below.



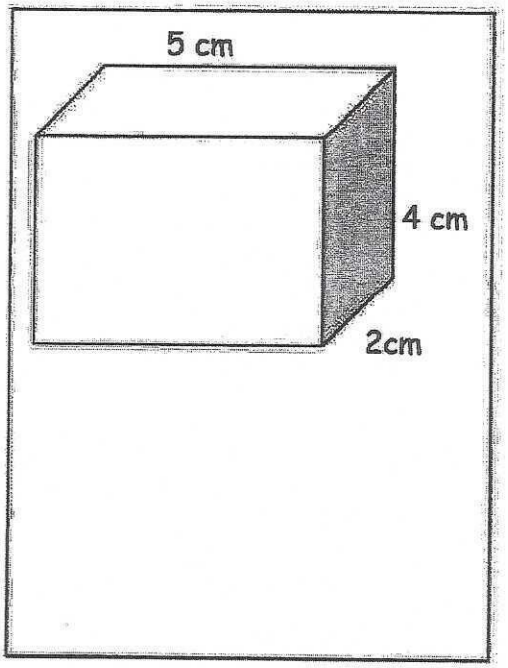
55. Find the area of the figure below.



56. Find the volume of the figure below.



57. Find the volume of the figure below.



Comparing Fractions
Compare each pair of numbers. Write the correct comparison symbol (<, >, =) in each circle. Make sure you have common denominators before comparing numerators.

Example:

$\frac{1}{3}$ ◯ $\frac{3}{4}$

$\frac{4}{12}$ $\quad$ $\frac{9}{12}$

58. $\frac{3}{8}$ ◯ $\frac{5}{8}$

59. $\frac{3}{4}$ ◯ $\frac{3}{8}$

60. $\frac{1}{2}$ ◯ $\frac{4}{8}$

61. $\frac{3}{7}$ ◯ $\frac{1}{4}$

62. $\frac{3}{5}$ ◯ $\frac{5}{6}$

63. $\frac{7}{8}$ ◯ $\frac{3}{4}$

Ordering Fractions

Order the following fractions from least to greatest.

64. $\frac{3}{8}$ $\frac{5}{8}$ $\frac{4}{8}$ $\frac{2}{8}$ $\frac{7}{8}$

65. $\frac{1}{5}$ $\frac{4}{5}$ $\frac{1}{10}$ $\frac{6}{10}$ $\frac{7}{10}$

66. $\frac{1}{2}$ $\frac{1}{4}$ $\frac{1}{6}$ $\frac{1}{3}$ $\frac{1}{5}$

67. $\frac{1}{2}$ $\frac{5}{16}$ $\frac{30}{64}$ $\frac{3}{8}$ $\frac{9}{32}$

Order of Operations

Solve the following problems. Show your work. Be sure to follow the order of operations.

Parenthesis
Exponents
Multiplication or Division: Which ever comes first from left to right.
Addition or Subtraction: Which ever comes first from left to right.

Example: $8 - 4 \div 2 + 2 =$

$8 - 2 + 2 =$

$6 + 2 =$

8

68. $15 \times 8 - 3 =$

69. $36 \div 4 \times 3 =$

70. $(30 + 8) \times 6 - 1 =$

71. $(30 + 8) \times (6-1) =$

72. $(29 - 18) + 14 \div 2 + 6 =$

73. $64 \div 8 \times 2$

Simply Fractions
Simplify the following fractions. If the fractions are improper, change them to mixed numbers then simplify.

Example: $\frac{10 \div 5}{25 \div 5} = \frac{2}{5}$

83. $\frac{14}{28}$

84. $\frac{15}{55}$

85. $\frac{12}{51}$

86. $\frac{34}{48}$

87. $\frac{17}{4}$

88. $\frac{80}{25}$

Adding Fractions and Mixed Numbers
Add the following fractions. Make sure you have common denominators before adding. Remember, you only add the numerator (top number) and you keep the denominator (bottom number) the same! Simplify your final answers.

Example:

$$\frac{1}{3} + \frac{1}{5} =$$

$$\frac{5}{15} + \frac{3}{15} = \frac{8}{15}$$

89. $\frac{6}{10} + \frac{3}{10} =$

90. $2\frac{3}{8} + 1\frac{2}{8} =$

91. $\frac{1}{9} + \frac{5}{6} =$

92. $\frac{1}{12} + 1\frac{2}{3} =$

Subtracting Fractions

Subtract the following fractions. Make sure you have common denominators before subtracting. Remember, you only subtract the numerator (top number) and you keep the denominator (bottom number) the same! Simplify your final answers.

Example:

$$\frac{5}{6} - \frac{1}{3} =$$

$$\frac{5}{6} - \frac{2}{6} = \frac{3}{6} = \frac{1}{2}$$

93. $\frac{5}{6} - \frac{3}{6} =$

94. $2\frac{8}{12} - 1\frac{3}{12} =$

95. $\frac{7}{10} - \frac{2}{4} =$

96. $3\frac{4}{5} - \frac{1}{4} =$

Multiplying Fractions

Multiply the following fractions. Multiply the numerators; then multiply the denominators. Simplify, if necessary.

Example:

$$\frac{3}{5} \times \frac{5}{9} = \frac{15}{45} = \frac{1}{3}$$

97. $\frac{3}{4} \times \frac{1}{3} =$

98. $\frac{2}{3} \times \frac{5}{8} =$

99. $\frac{1}{3} \times \frac{2}{5} =$

100. $\frac{7}{8} \times 2 =$