INFORMAL MATH PROBES – GRADE 6

_____ can correctly

NUMERATION:
- Recognize place value .0001 through billions in _____/5 attempts.
- Round numbers in _____/5 attempts.

WHOLE NUMBERS:
- Add two 3-digit numbers with regrouping in _____/5 attempts
- Subtract 3-digit numbers with zeros and regrouping in _____/5 attempts.
- Multiply a 3-digit number by a 3-digit number in _____/5 attempts.
- Divide any whole number by a 2-digit divisor in _____/5 attempts.
- Solve an equation with one variable.

DECIMALS:
- Read decimals to tens, hundreds, thousands in _____/5 attempts.
- Change decimals to fractions in _____/5 attempts.
- Add two decimals in _____/5 attempts.
- Subtract two decimals in ____/5 attempts.
- Multiply two decimals in _____/5 attempts.
- Divide a decimal by a decimal in _____/5 attempts

FRACTIONS:
- Add mixed numbers in _____/5 attempts.
- Subtract mixed numbers in _____/5 attempts.
- Dividing two fractions in _____/5 attempts.
- Simplify fractions in _____/5 attempts.

PROBLEM SOLVING:
- Solve _____/5 multi-step problems.

CLASSROOM WORK:
- Completes assignments with an average of _____% accuracy
- Completes chapter tests with _____% to _____% accuracy.

NAME: _____   **DATE:** _____

WHOLE NUMBERS:

3,765,201,489   .0253   5,439,782,016   1,234,567,890   55.6532

Round numbers to:

	Tens	Hundreds	Thousands
3,678	_____	_____	_____
10,599	_____	_____	_____
41,304	_____	_____	_____
155,042	_____	_____	_____
1,255,824	_____	_____	_____

(Go to Grade 5 Probes if student is not successful)

Add two 3-digit numbers with regrouping:

399	478	523	822	622
+ 473	+265	+ 757	+ 369	+578

Subtract 3-digit numbers with zeros and regrouping:

472	206	682	720	803
- 394	-137	- 395	- 476	- 289

Multiply a 3-digit number by a 3-digit number:

366	725	635	472	136
x 130	x 407	x 322	x 212	x 523

Divide a whole number by a 2-digit divisor:

7,390 ÷ 32 =   542 ÷ 12 =   1,576 ÷ 34 =

            5,064 ÷ 22 =   786 ÷ 50 =

Solve an equation with one variable:

$x + 3 = 7\text{-}3$ **x =** ___ $5 + 7 = x + 2$ **x =** ___ $4 \times a = 40 \div 2$ **a =** ___

$12 \div b = 5 - 2$ **b =** ___ $d - 10 = 4 \times 7$ **d =** ___

DECIMALS:

Read decimals:

.5   .50   .500   3.75   47.373

Change decimals to fractions:

.5 =   .20 =   .33 =   .75 =   .9 =

Add two decimals:

.472 + .5 =   .75 + .3 =   .576 + .3 =   .9 + .25 =   .25 + .25 =

Subtract two decimals:

.57 - .25 =   .862 - .322 =   .96 - .53 =   .782 - .351 =   .75 - .25 =

Multiply two decimals:

 5.63   2.75   6.98   1.87   4.56
x .4   x .6   x .2   x .5   x .3

Divide a decimal by a decimal:

‾‾‾‾‾   ‾‾‾‾‾   ‾‾‾‾‾   ‾‾‾‾‾   ‾‾‾‾‾
.2) 7.54   .5) 9.15   .8) 6.08   .7) 8.61   .3) 3.75

FRACTIONS:

Add mixed numbers:

$1\frac{1}{4} + 2\frac{5}{8} =$ $6\,\frac{2}{3} + 5\frac{1}{8} =$ $12\frac{7}{8} + 1\frac{1}{3} =$

$4\frac{2}{3} + 7\frac{1}{2} =$ $3\frac{1}{8} + 8\frac{2}{3} =$

Subtract mixed numbers:

$5\frac{1}{2} - 4\frac{1}{8} =$ $10\frac{1}{3} - 5\frac{2}{3} =$ $7\frac{1}{4} - 2\frac{5}{8} =$

         $3\frac{7}{8} - 1\frac{1}{8} =$ $16\frac{5}{8} - 6\frac{1}{3} =$

Divide two fractions:

$1/3 \div 1/2 =$ $3/8 \div 7/10 =$ $5/7 \div 5/6 =$

         $1/4 \div 5/10 =$ $2/3 \div 3/4 =$

Simplify Fractions:

$$\frac{5}{10} = \qquad \frac{6}{8} = \qquad \frac{4}{16} = \qquad \frac{3}{18} = \qquad \frac{2}{12} =$$

Story Problems – Grade 6

1. Sue's family drive to Colorado. The first day they drive 500 miles. The second day, they drove 900 miles, and the last day only 100 miles. What was the average number of miles they drove each day? _____

2. They stayed at motels two nights. The motels cost $50 each night. They spent $97 for food. How much did they spend for motel rooms and food on the way to Colorado? _____

3. Gas costs $1.00 per gallon. They drove 1500 miles. Their car gets 20 miles to a gallon of gas. What did gas cost for the trip to Colorado? _____

4. Sue's dad made a 12-minute telephone call. The first minute cost $1.00. Each additional minute cost $ .50. What was the total cost of the call home? _____

5. Sue's family took $1,000 with them to spend on their vacation. They spent $250 on the trip to Colorado and $575 while in Colorado. How much money do they have left to spend on the way home? _____