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 _____% to _____% accuracy with _____% average.
- Completes chapter tests with _____% to _____% accuracy with _____% average.

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	3,680	3,700	4,000
10,599	10,600	10,600	11,000
41,304	41,300	41,300	41,000
155,042	155,040	155,000	155,000
1,255,824	1,255,820	1,255,800	1,256,000

(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
872	743	1,280	1,191	1,200

Subtract 3-digit numbers with zeros and regrouping:

472	206	682	720	803
- 394	-137	- 395	- 476	- 289
78	69	287	244	514

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
47,580	295,075	204,470	100,064	71,128

Divide a whole number by a 2-digit divisor:

7,390 ÷ 32 = 230.9 542 ÷ 12 = 45.1 1,576 ÷ 34 = 46.3

5,064 ÷ 22 = 230.1 786 ÷ 50 = 15.7

Solve an equation with one variable:

x + 3 = 7-3 **x = 1** 5+ 7 = x + 2 **x = 10** 4 x a = 40 ÷ 2 **a = 5**

12 ÷ b = 5 – 2 **b = 4** d – 10 = 4 x 7 **d = 38**

DECIMALS:

Read decimals:

.5 .50 .500 3.75 47.373

Change decimals to fractions:

.5 = 1/2 .20 = 1/5 .33 = 33/100 .75 = 3/4 .9 = 9/10

Add two decimals:

.472 + .5 = .972 .75 + .3 = 1.05 .576 + .3 = .876 .9 + .25 = 1.15 .25 +.25 = .5

Subtract two decimals:

.57 - .25 = .32 .862 - .322 = .54 .96 - .53 = .43 .782 - .351 = .431 .75 - .25 = .5

Multiply two decimals:

5.63	2.75	6.98	1.87	4.56
x .4	x .6	x .2	x .5	x .3
2.252	1.65	1.396	.935	1.368

Divide a decimal by a decimal:

37.7	18.3	7.6	12.3	12.5
.2) 7.54	.5) 9.15	.8) 6.08	.7) 8.61	.3) 3.75

FRACTIONS:

Add mixed numbers:

1¼ + 2⅝ = 3 7/8 6 ⅔ + 5⅛ = 11 19/24 12⅞ + 1⅓ = 14 5/24

4⅔ + 7½ = 12 1/6 3⅛ + 8⅔ = 11 19/24

Subtract mixed numbers:

5½ - 4⅛ = 1 3/8 10⅓ - 5⅔ = 4 2/3 7¼ - 2⅝ = 4 3/8

3⅞ - 1⅛ = 2 3/4 16⅝ - 6⅓ = 10 7/24

Divide two fractions:

1/3 ÷ 1/2 = **2/3** 3/8 ÷ 7/10 = **15/28** 5/7 ÷ 5/6 = **6/7**

1/4 ÷ 5/10 = **1/2** 2/3 ÷ 3/4 = **8/9**

Simplify Fractions:

$\frac{5}{10} = \frac{1}{2}$ $\frac{6}{8} = \frac{3}{4}$ $\frac{4}{16} = \frac{1}{4}$ $\frac{3}{18} = \frac{1}{6}$ $\frac{2}{12} = \frac{1}{6}$

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? 500 miles 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? They spent $197.00 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? It cost $75.00 for gas 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? The call home cost $6.50

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? They have $175.00 left to spend on the way home.