

INFORMAL MATH PROBES – GRADE 5

_____ can correctly

NUMERATION:

- Read numbers from .001 to 1 billion in ____/5 attempts.
- Write numbers from .001 to 1 billion in ____/5 attempts.

SUBTRACTION:

- Subtract 3 digits from 3 digits with regrouping in ____/5 problems.

MULTIPLICATION:

- Multiply 50 facts ____ minutes, ____ seconds with ____ % accuracy.
- Multiply 3-digit by 1-digit numbers in ____/5 problems.
- Multiply 3-digit by 2-digit numbers in ____/5 problems.
- Square numbers 1-12 in ____/5 problems

DIVISION:

- Divide 3 digit by 1 digit with remainders in ____/5 problems.
- Divide 3 digits by 2 digits with remainders in ____/5 problems.

DECIMALS:

- Multiply decimals by natural numbers 1-9 in ____/5 problems
- Divide decimals by natural numbers 1-9 in ____/5 problems

FRACTIONS: (LCD-Lowest Common Denominator

- Write ____/5 fractions in lowest terms.
- Add fractions when LCD is included in ____/5 problems.
- Add fractions when LCD is not included in ____/5 problems.
- Subtract fractions when LCD is included in ____/5 problems.
- Subtract fractions when LCD is not included in ____/5 problems.

WORD PROBLEMS:

- Solve ____/5 fifth grade word problems.

CLASSROOM WORK:

- Daily assignments done with ____% accuracy.
- Chapter test scores range from ____% to ____% accuracy.

INFORMAL MATH PROBES – GRADE 5

Name: _____

Date: _____

NUMERATION:

Read numbers .001 through 1 billion:

1,739,451,276 0.025 1,107,251,602 122,620,015 0.135 /5

Write numbers .001 through 1 billion:

0.025 0.135 122,620,015 1,107,251,602 1,739,451,276 /5

SUBTRACTION:

Subtract 3 digits from 3 digits with regrouping:

a. $\begin{array}{r} 600 \\ - 326 \\ \hline 274 \end{array}$	b. $\begin{array}{r} 700 \\ - 485 \\ \hline 215 \end{array}$	c. $\begin{array}{r} 900 \\ - 671 \\ \hline 229 \end{array}$	d. $\begin{array}{r} 500 \\ - 218 \\ \hline 282 \end{array}$	e. $\begin{array}{r} 300 \\ - 149 \\ \hline 151 \end{array}$
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MULTIPLICATION:

Multiply 3-digit by 1-digit numbers:

a. $\begin{array}{r} 234 \\ \times 4 \\ \hline 936 \end{array}$	b. $\begin{array}{r} 376 \\ \times 2 \\ \hline 752 \end{array}$	c. $\begin{array}{r} 185 \\ \times 3 \\ \hline 555 \end{array}$	d. $\begin{array}{r} 478 \\ \times 2 \\ \hline 956 \end{array}$	e. $\begin{array}{r} 167 \\ \times 4 \\ \hline 668 \end{array}$
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Multiply 3-digit number by 2-digit number

a. $\begin{array}{r} 486 \\ \times 35 \\ \hline 17,010 \end{array}$	b. $\begin{array}{r} 493 \\ \times 65 \\ \hline 32,045 \end{array}$	c. $\begin{array}{r} 786 \\ \times 94 \\ \hline 73,884 \end{array}$	d. $\begin{array}{r} 639 \\ \times 87 \\ \hline 55,593 \end{array}$	e. $\begin{array}{r} 793 \\ \times 59 \\ \hline 46,787 \end{array}$
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Square the following numbers:

2	12	9	10	7
4	144	81	100	49

Multiplication Facts

Name: _____
 Time: _____ No. Correct: ____/100

8	5	2	3	5	7	9	2	4	6
<u>x 9</u>	<u>x 5</u>	<u>x 2</u>	<u>x 4</u>	<u>x 4</u>	<u>x 6</u>	<u>x 1</u>	<u>x 10</u>	<u>x 3</u>	<u>x 17</u>
72	25	4	12	20	42	9	20	12	102
5	6	3	3	2	11	5	3	2	6
<u>x 5</u>	<u>x 11</u>	<u>x 4</u>	<u>x 1</u>	<u>x 3</u>	<u>x 0</u>	<u>x 8</u>	<u>x 0</u>	<u>x 1</u>	<u>x 8</u>
25	66	12	3	6	0	40	0	2	48
5	4	12	10	9	23	2	34	50	11
<u>x 12</u>	<u>x 8</u>	<u>x 5</u>	<u>x 1</u>	<u>x 0</u>	<u>x 8</u>	<u>x 2</u>	<u>x 5</u>	<u>x 6</u>	<u>x 9</u>
60	32	60	10	0	184	4	170	300	99
3	9	18	47	4	31	2	9	8	7
<u>x 7</u>	<u>x 7</u>	<u>x 1</u>	<u>x 3</u>	<u>x 3</u>	<u>x 5</u>	<u>x 4</u>	<u>x 5</u>	<u>x 4</u>	<u>x 1</u>
21	63	18	141	12	155	8	45	32	7
5	49	38	22	1	8	17	6	44	26
<u>x 19</u>	<u>x 3</u>	<u>x 2</u>	<u>x 9</u>	<u>x 2</u>	<u>x 10</u>	<u>x 6</u>	<u>x 6</u>	<u>x 2</u>	<u>x 3</u>
95	147	76	198	2	80	102	36	88	78
18	43	31	48	26	18	25	41	18	27
<u>x 8</u>	<u>x 6</u>	<u>x 7</u>	<u>x 3</u>	<u>x 9</u>	<u>x 7</u>	<u>x 6</u>	<u>x 6</u>	<u>x 9</u>	<u>x 5</u>
144	258	217	144	234	126	150	246	162	135
33	41	49	27	13	29	47	37	26	15
<u>x 3</u>	<u>x 3</u>	<u>x 4</u>	<u>x 8</u>	<u>x 5</u>	<u>x 8</u>	<u>x 7</u>	<u>x 2</u>	<u>x 0</u>	<u>x 1</u>
99	123	196	216	65	232	329	74	0	15
25	27	15	34	42	29	18	26	45	39
<u>x 7</u>	<u>x 4</u>	<u>x 0</u>	<u>x 9</u>	<u>x 8</u>	<u>x 9</u>	<u>x 6</u>	<u>x 4</u>	<u>x 3</u>	<u>x 2</u>
175	108	0	306	336	261	108	104	135	78
49	47	26	35	11	44	27	36	14	42
<u>x 1</u>	<u>x 0</u>	<u>x 2</u>	<u>x 5</u>	<u>x 4</u>	<u>x 6</u>	<u>x 9</u>	<u>x 7</u>	<u>x 4</u>	<u>x 0</u>
49	0	52	175	44	264	243	252	56	0
28	24	38	17	42	14	39	13	32	24
<u>x 7</u>	<u>x 7</u>	<u>x 8</u>	<u>x 8</u>	<u>x 7</u>	<u>x 8</u>	<u>x 9</u>	<u>x 9</u>	<u>x 7</u>	<u>x 1</u>
196	168	304	136	294	112	351	117	224	24

DIVISION

Divide 3-digits by 1-digit with remainders:

$\begin{array}{r} \underline{72 \text{ r } 3} \\ 4 \overline{) 291} \end{array}$	$\begin{array}{r} \underline{88 \text{ r } 1} \\ 3 \overline{) 265} \end{array}$	$\begin{array}{r} \underline{92 \text{ r } 3} \\ 5 \overline{) 463} \end{array}$	$\begin{array}{r} \underline{37 \text{ r } 3} \\ 8 \overline{) 299} \end{array}$	$\begin{array}{r} \underline{68 \text{ r } 1} \\ 2 \overline{) 137} \end{array}$
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Divide 3-digits by 2-digits with remainders:

$\begin{array}{r} \underline{6 \text{ r } 41} \\ 42 \overline{) 293} \end{array}$	$\begin{array}{r} \underline{8 \text{ r } 26} \\ 81 \overline{) 674} \end{array}$	$\begin{array}{r} \underline{6 \text{ r } 2} \\ 38 \overline{) 230} \end{array}$	$\begin{array}{r} \underline{6 \text{ r } 50} \\ 79 \overline{) 524} \end{array}$	$\begin{array}{r} \underline{5 \text{ r } 7} \\ 84 \overline{) 427} \end{array}$
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DECIMALS:

Multiply decimals by natural numbers 1-9:

$$.042 \times 2 = 0.184 \quad .5 \times 6 = 3 \quad .25 \times 8 = 2 \quad .333 \times 9 = 2.997 \quad .04 \times 1 = 0.04$$

Divide decimals by natural numbers 1-9:

$$.5 \div 2 = 0.25 \quad .025 \div 1 = 0.025 \quad .623 \div 5 = 0.1246 \quad .75 \div 9 = 0.083 \quad .133 \div 4 = 0.033$$

FRACTIONS

Write in the lowest terms:

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

Add fractions with Lowest Common Denominator included:

$\frac{1}{4}$	$\frac{1}{12}$	$\frac{3}{10}$	$\frac{3}{14}$	$\frac{4}{15}$
$\frac{2}{4}$	$\frac{10}{12}$	$\frac{5}{10}$	$\frac{4}{14}$	$\frac{3}{15}$
$\underline{+ 4}$	$\underline{+ 12}$	$\underline{+ 10}$	$\underline{+ 14}$	$\underline{+ 15}$
$\frac{3}{4}$	$\frac{11}{12}$	$\frac{4}{5}$	$\frac{1}{2}$	$\frac{7}{15}$

Add fractions without Lowest Common Denominator provided:

$\frac{3}{16}$	$\frac{4}{15}$	$\frac{1}{18}$	$\frac{3}{4}$	$\frac{5}{16}$
$\frac{2}{16}$	$\frac{3}{15}$	$\frac{2}{18}$	$\frac{5}{4}$	$\frac{2}{16}$
$\underline{+ 10}$	$\underline{+ 9}$	$\underline{+ 12}$	$\underline{+ 6}$	$\underline{+ 6}$
$\frac{1}{4}$	$\frac{3}{5}$	$\frac{2}{9}$	$1 \frac{1}{4}$	$\frac{31}{48}$

Subtract fractions with Lowest Common Denominator included:

$\frac{8}{9}$	$\frac{7}{10}$	$\frac{9}{12}$	$\frac{11}{15}$	$\frac{6}{11}$
$\frac{3}{9}$	$\frac{5}{10}$	$\frac{4}{12}$	$\frac{7}{15}$	$\frac{3}{11}$
$\underline{- 9}$	$\underline{- 10}$	$\underline{- 12}$	$\underline{- 15}$	$\underline{- 11}$
$\frac{5}{9}$	$\frac{1}{5}$	$\frac{5}{12}$	$\frac{4}{15}$	$\frac{3}{11}$

Subtract fractions without Lowest Common Denominator provided

$\frac{3}{5}$	$\frac{1}{2}$	$\frac{3}{4}$	$\frac{1}{2}$	$\frac{5}{6}$
$\frac{1}{5}$	$\frac{2}{2}$	$\frac{5}{4}$	$\frac{2}{2}$	$\frac{1}{6}$
$\underline{- 3}$	$\underline{- 5}$	$\underline{- 9}$	$\underline{- 13}$	$\underline{- 5}$
$\frac{4}{15}$	$\frac{1}{10}$	$\frac{7}{36}$	$\frac{9}{26}$	$\frac{19}{30}$

Problem Solving

1. The Tasty Tea Company produced 6,792 tea bags one day. If they put 24 tea bags in each box, how many boxes do they need? They need 283 boxes
2. One truck has 854 cartons of tea to deliver. Another has 783 cartons. How many cartons are to be Delivered in all? 1,637 cartons will be delivered in all
3. There are 2,772 boxes of tea ready to be put into cartons. If there are 12 boxes in a carton, how many cartons are needed? 231 cartons are needed
4. 12 stores ordered a total of 6,300 boxes of tea. If each store ordered the same number of boxes, how many boxes does each receive? Each receives 525 boxes.
5. A Tasty Tea delivery truck traveled 634 miles one week and 586 miles another week. How much farther did it travel the first week? 48 more miles the first week