

# 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
<u>+ 473</u>	<u>+ 265</u>	<u>+ 757</u>	<u>+ 369</u>	<u>+ 578</u>

Subtract 3-digit numbers with zeros and regrouping:

472	206	682	720	803
<u>- 394</u>	<u>- 137</u>	<u>- 395</u>	<u>- 476</u>	<u>- 289</u>

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

366	725	635	472	136
<u>x 130</u>	<u>x 407</u>	<u>x 322</u>	<u>x 212</u>	<u>x 523</u>

Divide a whole number by a 2-digit divisor:

$7,390 \div 32 =$	$542 \div 12 =$	$1,576 \div 34 =$
$5,064 \div 22 =$	$786 \div 50 =$	

Solve an equation with one variable:

$x + 3 = 7 - 3 \quad \mathbf{x} = \underline{\hspace{2cm}}$

$5 + 7 = x + 2 \quad \mathbf{x} = \underline{\hspace{2cm}}$

$4 \times a = 40 \div 2 \quad \mathbf{a} = \underline{\hspace{2cm}}$

$12 \div b = 5 - 2 \quad \mathbf{b} = \underline{\hspace{2cm}}$

$d - 10 = 4 \times 7 \quad \mathbf{d} = \underline{\hspace{2cm}}$

### 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:

$\frac{1}{3} \div \frac{1}{2} =$

$\frac{3}{8} \div \frac{7}{10} =$

$\frac{5}{7} \div \frac{5}{6} =$

$\frac{1}{4} \div \frac{5}{10} =$

$\frac{2}{3} \div \frac{3}{4} =$

Simplify Fractions:

$\frac{5}{10} =$

$\frac{6}{8} =$

$\frac{4}{16} =$

$\frac{3}{18} =$

$\frac{2}{12} =$

## 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?  
\_\_\_\_\_