

Multiplication, Division, Decimals, Fractions, Metric & Customary

Measurements, & Volume

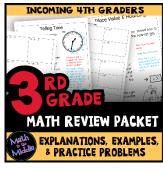
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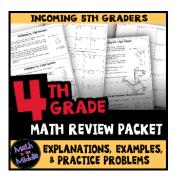
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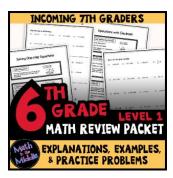
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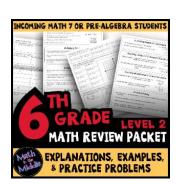
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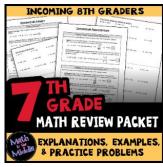
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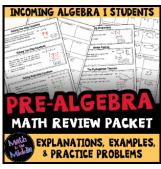


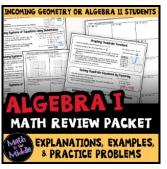












## Digital Self-Grading Version of this Math Packet:

The digital version of this packet is broken up into 5 separate Google Forms Quizzes (one for each practice page of the pdf packet).

To use the digital version of this packet, you will need to first make sure that you are logged into your Google account. (If you have more than one account, be sure to use the account you use for school.)

Add each form to your Google Drive by clicking the links below and then clicking "make a copy". You will now have your own original copies of the forms in your Google account.

You can assign the forms to your students using Google Classroom or through another <u>secure</u> classroom site that only your students can access. (The links may <u>not</u> be posted freely on the Internet.)

## Click the links below to make copies of each of the Google Forms:

#1: Multiplying & Dividing Whole Numbers

#2: Decimal Basics

#3: Decimal Operations

#4: Fraction Operations

#5: Measurement

### Multiplying Whole Numbers

- I. Write the problem vertically
- 2. Multiply the ones digit of the bottom number by each of the digits in the top number, right to left
- 3. Bring down a zero and then multiply the tens digit of the bottom number by each digit in the top number, right to left
- 4. Bring down two zeros and repeat with the hundreds digit of the bottom number
- 5. Add up all of the products

### Dividing Whole Numbers

- I. Write out the long division problem with the first number (dividend) underneath the division symbol and the second number (divisor) to the left of the division symbol
- 2. Divide the divisor into the smallest part of the dividend it can go into and write the number of times it can go in on top of the division symbol
- 3. Multiply the number on top by the divisor and write the product under the number you divided into in step 2
- 4. Subtract your product from the number above it
- 5. Bring down the next digit of the dividend
- 6. Repeat steps 2-5 until there is nothing left to bring down.
- 7. If your last subtraction answer is not zero, write the remainder on top

ex: 6,425 ÷ 21

305 R 20

21)6425

-63

-12

-125

-105

Find each product. Show your work.

ı. 238 x 5	2. 832 x 156	3. 4,899 x 67	4. 756 x 300
5. 19 x 863	6. 188 x 732	7. 3,249 x 173	8. 609 x 840

Find each quotient. Show your work.

Find each quotient. Show your work.				
9. 876 ÷ 2	10. 9,473 ÷ 5	II. 396 ÷ 24	12. 8,911 ÷ 45	
13. 700 ÷ 12	14. 1,065 ÷ 15	15. 2,737 ÷ 305	16. 4,516 ÷ 22	

- 17. Mrs. Kleim bought 5 boxes of 15 pencils to give to her students. If she has 26 students in her class, how many pencils can she give each student? How many pencils will she have left over?
- 18. Sarah and her 3 friends split a bag of candy evenly. They each ate 13 pieces of candy and there were 2 pieces leftover. How many pieces of candy were originally in the bag?

### Rounding with Whole Numbers & Decimals

				_			
ten-thousands	thousands	hundreds	tens	ones	tenths	hundredths	thousandths

- 1. Keep all digits to the left of the place you are rounding the same
- 2. If the digit to the right of the rounding digit is less than 5, keep the rounding digit the same. If it's 5 or greater, increase the rounding digit by 1.
- 3. Change all places to the right of the digit you are rounding to 0. (Trailing zeros after the decimal are unnecessary)

ex: round 52.943 to the nearest tenth

52.<u>9</u>43

less than 5, so the 9 stays
the same

52.900

don't need trailing zeros after the decimal

52.9

#### Word Form & Expanded Form

- 1. Word Form: write the whole number in word form, translate the decimal to "and",  $\varepsilon$  write the decimal as if it were a whole number, followed by the name of the place of the last digit
- 2. Expanded Form: write the value of each non-zero digit separately, with addition signs between them

ex: 209.315

two hundred nine and three hundred fifteen thousandths

200 + 9 + 0.3 + 0.01 + 0.005

## Comparing & Ordering Decimals

- 1. Compare the whole number portions of the numbers. If they are different write > for greater than or < for less than.
- 2. If the whole numbers are the same, compare each digit to the right of the decimal point, one at a time until you find digits that are different. (If necessary, add zeros at the end of a decimal.)

ex: 13.702 13.74

13 = 13

13.7 = 13.7

13.70 < 13.74

So, 13.702 < 13.74

Round the number 21,498.2536 to the nearest indicated place.

19. tenth	20. hundred	21. thousandth	22. one
23. thousand	24. hundredth	25. ten	26. ten-thousand

Complete the chart below.

Standard Form	Expanded Form	Word Form
	27.	28.
3.962		
29.		30.
	100 + 2 + 0.09	
31.	32.	Five thousand six hundred eighty-five and twelve hundredths
8,770.006	33.	34.
35.	900 + 10 + 4 + 0.3 + 0.02 + 0.008	36.
37.	38.	Two thousand nine and thirty-five thousandths

Compare each pair of numbers by writing <, >, or = in the provided circle.

39. 0.046 0.13	40. 9.52 90.13	41. 24.13 24.130	42. 15.96 15.906
43.	6.83 6.825	45. 7.256 7.24	46. 32.9 3.290

Order the numbers from least to greatest.

47. 6.86, 6.8, 7, 6.9, 6.827	48. 12.03, 1.2, 12.3, 1.203, 12.301

### Adding & Subtracting Decimals

- I. Write the problem vertically, lining up the decimal points
- ex: 12.8 1.52

- 2. Add zeros, if necessary
- 3. Add or subtract the numbers as if they were whole numbers

12.780

4. Bring the decimal point straight down

#### Multiplying Decimals

- 1. Write the problem vertically with the numbers lined up to the right (decimals do NOT need to be lined up)
- ex: 3.24 x 0.8
- 2. Ignore the decimal points and multiply the numbers as if they were whole numbers
- 3. Count the total number of decimal places in the two factors and put a decimal point in the product so that it has that same number of decimal places

## Dividing Decimals

- I. Write the dividend under the division symbol and the divisor in front of the division symbol
- 2. Move the decimal in the divisor after the number and then move the decimal in the dividend the same number of places and bring it up
- 3. Ignore the decimal point and divide as if whole numbers
- 4. If there is a remainder, add a zero to the end of the dividend, bring it down, and then continue dividing until there is no remainder

49. 8.74 + 10.36	50. 37.4 – 8.55	51. 12.9 + 105.67	52. 450.89 – 213.33
53. 24.1 + 3.74	54. 14.76 — 9.8	55. 622.85 + 53.49	56. 67 – 14.06

Find each product or quotient. Show your work.

- This court product of quotient. Onew your work.			
57. 4.5 x 6	58. 144.8 ÷ 4	54. 2.7 x 0.8	60. 6.2 ÷ 0.04
61. 8.9 x 2.5	62. 15.8 ÷ 0.5	63. 14.8 x 0.12	64. 16.2 ÷ 1.2

Solve each problem, showing all work.

65. Ryan spent \$3.25 on lunch every day, Monday
through Friday. If he had \$20 at the start of the
week, how much money did he have left after
Friday?
, and the second

66. Three friends went out to lunch. The bill came to \$47.31. If they split the bill evenly, how much money does each friend owe?

## Adding & Subtracting Fractions

- I. Rename the fractions to equivalent fractions with common denominators
- ex:  $4\frac{4}{9} + \frac{2}{3}$
- 2. Add or subtract the numerators and keep the denominator the same
- 3. If mixed numbers, add or subtract the whole numbers

 $4 \quad \frac{10}{9} = \boxed{5 \frac{1}{9}}$ 

4. If possible, simplify the answer  $\varepsilon$  change improper fractions to mixed numbers

## Multiplying Fractions

- I. Turn a whole number into a fraction by giving it a denominator of I
- ex:  $6 \times \frac{2}{3}$

2. Cross-simplify the fractions if possible

 $\frac{2}{1} \times \frac{2}{3} = \frac{4}{1}$ 

3. Multiply the 2 numerators and the 2 denominators

= 4

4. If possible, simplify the answer  $\ensuremath{\mathcal{E}}$  change improper fractions to mixed numbers

## Dividing Fractions

- I. Turn a whole number into a fraction by giving it a denominator of I
- ex:  $12 \div \frac{1}{2}$
- 2. Keep the 1<sup>st</sup> fraction the same, change the division symbol to multiplication, and flip the 2<sup>nd</sup> fraction to its reciprocal
- $\frac{12}{1} \div \frac{1}{2}$

3. Multiply the 2 fractions

- $\frac{12}{1} \times \frac{2}{1} = \frac{24}{1} = 24$
- 4. If possible, simplify the answer  $\mathcal{E}$  change improper fractions to mixed numbers

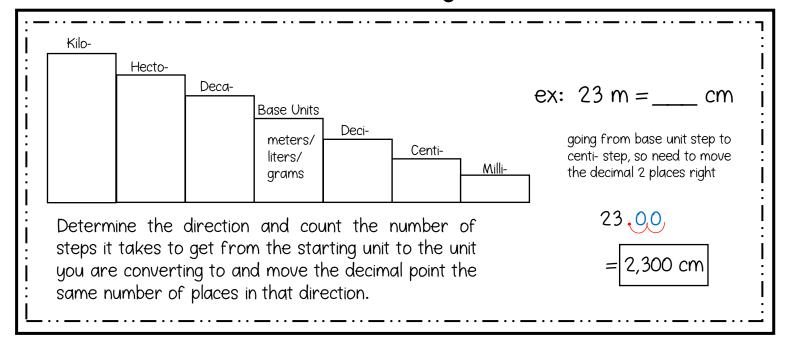
68. <del>q</del> – <del>1</del>	$69. \frac{3}{11} + \frac{2}{6}$	70. $\frac{11}{12} - \frac{13}{18}$
0 2	3	/3 /2 /8
72. $ 2\frac{q}{w} - q\frac{3}{\pi} $	73. $3\frac{3}{5} + 2\frac{3}{4}$	74. $2\frac{2}{15} - 1\frac{2}{3}$
14 17	5 4	15 3
	68. $\frac{q}{10} - \frac{1}{2}$ 72. $12\frac{q}{14} - q\frac{3}{7}$	

Find each product or quotient. Show your work.

75. $\frac{1}{6} \times \frac{3}{4}$	76. $6 \div \frac{1}{3}$	77. 15 x $\frac{2}{3}$	78. $\frac{1}{2} \div 3$
79. 1/6 × 10	80. <del> </del> + 2	81. $\frac{5}{9} \times \frac{3}{20}$	82. 4 ÷ <del>[</del> 5
V	1	9 20	3

, , , , , , , , , , , , , , , , , , , ,	
83. Jacqui ran 1 ½ miles on Monday, Wednesday, and Friday and 3¼ mile on Tuesday and Thursday. How far did she run in all?	84. Tyrell gave 3 packs of baseball cards to his friends. He gave each friend 1/3 of a pack. How many friends got baseball cards?

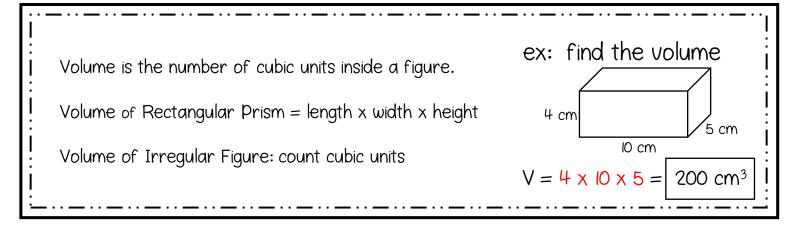
#### The Metric System



#### The Customary System

	Length	vveignt	Сарасіту	ex: 18 c = pt
	1 ft = 12 in 1 yd = 3 ft 1 mi = 5,280 ft	1 lb = 16 oz 1 T = 2,000 lb	c = 8 f  oz   pt = 2 c   qt = 2 pt   gal = 4 qt	cups are smaller units of measure than pints, so need to divide
m			nit to a smalle naller unit to a	10 - 1 U NINIC 1

#### Volume



Convert each Metric measurement. Show your work.

.9 km =	m
	.9 km =

86. 
$$23 g = ___ mg$$

88. 
$$0.07 \text{ kg} = \underline{\hspace{1cm}} \text{cg}$$

89. 
$$6 \text{ cm} = _{m} \text{ m}$$

90. 
$$35 \text{ ml} =$$
\_\_\_\_\_l

Convert each Customary measurement. Show your work.

91. 
$$48 \text{ in} = ____ \text{ft}$$

93. 
$$3 T = ____ lb$$

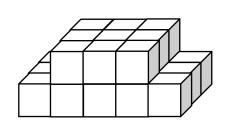
94. 
$$1.5 \text{ mi} = ____ \text{ft}$$

95. 
$$32 pt = ____ gal$$

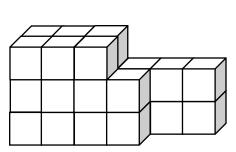
96. 
$$32 \text{ oz} =$$
\_\_\_\_lb

Find the volume of each figure. Show your work.

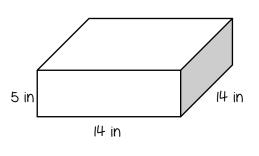
97.



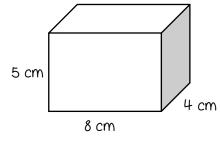
98.



99.



100.



Find each product. Show your work.

ı. 238 x 5	2. 832 x 156	3. 4,899 x 67	4. 756 x 300
1,190	129,792	328,233	226,800
5. 19 x 863	6. 188 x 732	7. 3,249 x 173	8. 609 x 840
16,397	137,616	562,077	511,560

Find each quotient. Show your work.

			<del> </del>
9. 876 ÷ 2	ю. 9,473 ÷ 5	11. 396 ÷ 24	12. 8,911 ÷ 45
438	1,894 R3	16 R12	198 RI
13. 700 ÷ 12	14. 1,065 ÷ 15	15. 2,737 ÷ 305	16. 4,516 ÷ 22
58 R4	71	8 R297	205 R6

Solve each problem, showing all work.

17. Mrs. Kleim bought 5 boxes of 15 pencils to give to her students. If she has 26 students in her class, how many pencils can she give each student? How many pencils will she have left over?

2 pencils/student23 pencils leftover

18. Sarah and her 3 friends split a bag of candy evenly. They each ate 13 pieces of candy and there were 2 pieces leftover. How many pieces of candy were originally in the bag?

54 pieces of candy

#### Round the number 21,498.2536 to the nearest indicated place.

19. tenth	20. hundred	21. thousandth	22. one
21,498.3	21,500	21,498.254	21,498
23. thousand	24. hundredth	25. ten	26. ten-thousand
21,000	21,498.25	21,500	20,000
			·

#### Complete the chart below.

Standard Form	Expanded Form	Word Form
3.962	3 + 0.9 + 0.06 + 0.002	three and nine hundred sixty- two thousandths
102.09	100 + 2 + 0.09	one hundred two and nine hundredths
5,685.12	5,000 + 600 + 80 + 5 + 0.1 + 0.02	Five thousand six hundred eighty-five and twelve hundredths
8,770.006	8,000 + 700 + 70 + 0.006	eight thousand seven hundred seventy and six thousandths
914.328	900 + 10 + 4 + 0.3 + 0.02 + 0.008	nine hundred fourteen and three hundred twenty-eight thousandths
<sup>37.</sup> <b>2,009.035</b>	2,000 + 9 + 0.03 + 0.005	Two thousand nine and thirty-five thousandths

#### Compare each pair of numbers by writing <, >, or = in the provided circle.

39. 0.04	6 0.13	40. 9.52 90.13	41. 24.13 = 24.130	42. 15.96 15.906
43. 0.96	+ (<)	6.83 6.825	45. 7.256 7.24	46. 32.9 3.290

#### Order the numbers from least to greatest.

47. 6.86, 6.8, 7, 6.9, 6.827	48. 12.03, 1.2, 12.3, 1.203, 12.301
6.8, 6.827, 6.86, 6.9, 7	1.2, 1.203, 12.03, 12.3, 12.301

49. 8.74 + 10.36	50. 37.4 – 8.55	51. 12.9 + 105.67	52. 450.89 – 213.33
19.1	28.85	118.57	237.56
53. 24.1 + 3.74	54. 14.76 – 9.8	55. 622.85 + 53.49	56. 67 – 14.06
27.84	4.96	676.34	52.94

#### Find each product or quotient. Show your work.

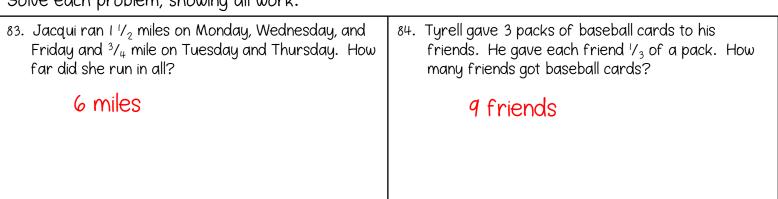
57. 4.5 x 6	58. 144.8 ÷ 4	59. 2.7 x 0.8	60. 6.2 ÷ 0.04
27	36.2	2.16	155
61. 8.9 x 2.5	62. 15.8 ÷ 0.5	63. 14.8 x 0.12	64. 16.2 ÷ 1.2
22.25	31.6	1.776	13.5

65. Ryan spent \$3.25 on lunch every day, Monday through Friday. If he had \$20 at the start of the week, how much money did he have left after Friday?	66. Three friends went out to lunch. The bill came to \$47.31. If they split the bill evenly, how much money does each friend owe?
\$3.75	\$15.77

67. $\frac{7}{8} + \frac{5}{6}$	68. $\frac{q}{10} - \frac{1}{2}$	69. $\frac{3}{11} + \frac{2}{3}$	70. $\frac{11}{12} - \frac{13}{18}$
1 <u>17</u>	68. $\frac{9}{10} - \frac{1}{2}$	$\frac{31}{33}$	$\frac{7}{36}$
71. $4\frac{5}{q} + 7\frac{1}{3}$	72. $12\frac{9}{14} - 9\frac{3}{7}$	73. $3\frac{3}{5} + 2\frac{3}{4}$	74. $2\frac{2}{15} - 1\frac{2}{3}$
11 <u>8</u>	3 <del>3</del> 14	<b>6</b> $\frac{7}{20}$	<u>7</u> 15
71. $4\frac{5}{q} + 7\frac{1}{3}$ $11\frac{8}{q}$	72. $12\frac{q}{14} - q\frac{3}{7}$ $3\frac{3}{14}$	73. $3\frac{3}{5} + 2\frac{3}{4}$ 6 $\frac{7}{20}$	74. $2\frac{2}{15} - 1\frac{2}{3}$ $\frac{7}{15}$

Find each product or quotient. Show your work.

75. $\frac{1}{6} \times \frac{3}{4}$	76. $6 \div \frac{1}{3}$	77. 15 x $\frac{2}{3}$	78. $\frac{1}{2} \div 3$
<u> </u>   8	18	Ю	<del>[</del> 6
79. $\frac{1}{6} \times 10$	80. \(\frac{1}{4} \div 2\)	81. $\frac{5}{9} \times \frac{3}{20}$	82. $4 \div \frac{1}{5}$
$1\frac{2}{3}$	<u> </u>   8	<u> </u>   2	20



Convert each Metric measurement. Show your work.

ge are the contract of the con				
85. I.9 km = m	86. $23 g = mg$	87. 350 ml = kl		
1,900	23,000	0.00035		
· ·	·			
88. $0.07 \text{ kg} = \underline{\qquad} \text{cg}$	89. $6 \text{ cm} = \text{m}$	90. 35 ml = l		
7,000	0.06	0.035		

Convert each Customary measurement. Show your work.

91. 48 in = ft	92. 6 pt = c	93. 3 T = lb
4	12	6,000
94. 1.5 mi = ft	95. 32 pt = gal	96. 32 oz =lb
7,920	4	2

Find the volume of each figure. Show your work.

