

## 5th Grade Summer Math Assignment

1. All students entering 5th grade in the fall need to have mastered the multiplication facts through the number 12. You can purchase flash cards from a store or make your own. You can also log onto a multiplication website such as [www.tlsbooks.com](http://www.tlsbooks.com) to practice online. There will be a multiplication test the first week of school on the numbers 1-12.
2. Please print out the worksheets below. This packet is due on the first day of school this August.

I want to thank all of the fantastic fourth graders for their hard work and enthusiasm this year. I especially thank you their parents for all of the support you give the children in their academic progress. I hope everyone has a great summer!

God bless,

Ms. Cash

Name \_\_\_\_\_ Date \_\_\_\_\_



# Place Value Through Hundred Thousands

Write the number in the place-value chart in four ways.

Thousands			Ones		
hundred thousands	ten thousands	one thousands	hundreds	tens	ones
4	3	9	1	5	8

Short Word Form	Word Form
439 thousand, 158	four hundred thirty-nine thousand, one hundred fifty-eight
Standard Form	Expanded Form
439,158	$400,000 + 30,000 + 9,000 + 100 + 50 + 8$

Write each number in three other ways. You can use a place-value chart to help you.

1. 125,312

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2.  $200,000 + 50,000 + 9,000 + 200 + 30 + 7$

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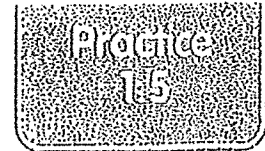
3. 317 thousand, 209

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Name \_\_\_\_\_ Date \_\_\_\_\_



## Place Value Through Hundred Millions

Write the number below in short word form.

1.  $200,000,000 + 30,000,000 + 400,000 + 50,000 + 1,000$

\_\_\_\_\_

Write the number below in standard form.

2.  $100,000,000 + 80,000,000 + 5,000,000 + 300,000 + 20,000 + 8,000$

\_\_\_\_\_

Write the number below in expanded form.

3. 463 million, 342 thousand, 705

\_\_\_\_\_  
\_\_\_\_\_

Write the number below in word form.

4. 715,413,068 \_\_\_\_\_

\_\_\_\_\_

Write the place of the 2 in each number. Then write its value.

5. 21,547

\_\_\_\_\_  
\_\_\_\_\_

6. 54,285

\_\_\_\_\_  
\_\_\_\_\_

7. 67,902

\_\_\_\_\_  
\_\_\_\_\_



8. Tell what form of the number is being used in the statement below.

Over 10,000,000 tacos sold.

A standard      C expanded

B short word      D word

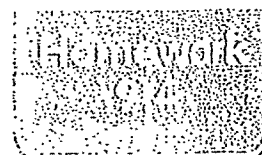
9. Write the value of the underlined digit in the number below.

648,396,178

Explain how you found your answer.

\_\_\_\_\_  
\_\_\_\_\_

Name \_\_\_\_\_ Date \_\_\_\_\_



## Zeros in the Quotient

Divide. Check your answers.

$\begin{array}{r} 208 \text{ R}2 \\ 3 \overline{)626} \\ \underline{-6} \phantom{0} \\ 02 \\ \underline{-0} \phantom{0} \\ 026 \\ \underline{-24} \\ 2 \end{array}$	<b>Remember the steps:</b> <ul style="list-style-type: none"><li>• Decide where to place the first digit.</li><li>• Bring down the tens. Divide the tens.</li><li>• Bring down the ones. Divide the ones.</li></ul>
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1.  $2 \overline{)612}$

2.  $5 \overline{)543}$

3.  $6 \overline{)655}$

4.  $4 \overline{)816}$

5.  $4 \overline{)836}$

6.  $7 \overline{)762}$

7.  $2 \overline{)813}$

8.  $6 \overline{)485}$

9.  $3 \overline{)921}$

10.  $2 \overline{)417}$

11.  $5 \overline{)353}$

12.  $4 \overline{)419}$

13.  $512 \div 5$   
\_\_\_\_\_

14.  $735 \div 7$   
\_\_\_\_\_

15.  $101 \div 2$   
\_\_\_\_\_

16.  $622 \div 3$   
\_\_\_\_\_

### Problem Solving

17. The sea lion show at the zoo has six shows each day. In one day, 654 people saw the sea lion show. What was the average number of people at each show?

# Metric Units of Length

## Metric Units

1 centimeter (cm) = 10 millimeters (mm)

1 decimeter (dm) = 10 centimeters (cm)

1 meter (m) = 10 decimeters (dm) or 100 centimeters

1 kilometer (km) = 1,000 meters (m)

Remember:

**Think:** 1 cm = 10 mm

So, a centimeter is larger than a millimeter

To convert a larger unit to a smaller unit, multiply.

$$5 \text{ cm} = ? \text{ mm}$$

$$5 \times 10 = 50$$

$$5 \text{ cm} = 50 \text{ mm}$$

**Think:** 100 cm = 1 m

So, a centimeter is smaller than a meter

To convert a smaller unit to a larger unit, divide.

$$300 \text{ cm} = ? \text{ m}$$

$$300 \div 100 = 3$$

$$300 \text{ cm} = 3 \text{ m}$$

Find each missing number.

1. 4 cm = \_\_\_\_\_ mm

2. \_\_\_\_\_ dm = 5 m

3. \_\_\_\_\_ mm = 80 cm

4. 3 km = \_\_\_\_\_ m

5. 6 dm = \_\_\_\_\_ cm

6. 500 dm = \_\_\_\_\_ m

7. 2 dm = \_\_\_\_\_ cm

8. \_\_\_\_\_ mm = 5 cm

9. \_\_\_\_\_ m = 8 km

10. 5,000 m = \_\_\_\_\_ km

11. \_\_\_\_\_ mm = 6 cm

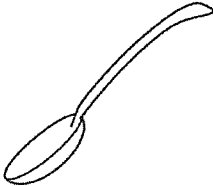
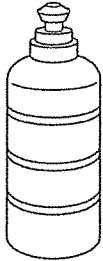
12. \_\_\_\_\_ m = 2 km

13. 40 dm = \_\_\_\_\_ m

14. 3 dm = \_\_\_\_\_ cm

15. 70 mm = \_\_\_\_\_ cm

# Metric Units of Capacity

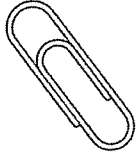
<p>This teaspoon holds about 5 milliliters of fluid.</p> <div style="text-align: center; margin-top: 20px;">  </div>	<p>This bottle holds about 1 liter of fluid.</p> <div style="text-align: center; margin-top: 20px;">  </div>
<p>How many milliliters are there in 4 L?</p> <p><b>Remember:</b></p> <p>1 liter (L) = 1,000 milliliters (mL)</p> <p>So, a liter is larger than a milliliter.</p>	<p><b>Think:</b> To change larger units to smaller units, multiply.</p> <p><math>4 \times 1,000 = 4,000</math></p> <p><b>There are 4,000 mL in 4 L.</b></p>

Find each missing number.

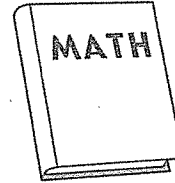
- |                        |                          |                           |
|------------------------|--------------------------|---------------------------|
| 1. 9 L = _____ mL      | 2. 15,000 mL = _____ L   | 3. 40 L = _____ mL        |
| 4. 19,000 mL = _____ L | 5. 26,000 mL = _____ L   | 6. 1,000,000 mL = _____ L |
| 7. 200 L = _____ mL    | 8. 4,000 mL = _____ L    | 9. _____ mL = 25L         |
| 10. 10 L = _____ mL    | 11. _____ L = 175,000 mL | 12. _____ L = 72,000 mL   |

# Metric Units of Mass

The mass of a paperclip is about 1 gram (g).



The mass of the book is about 1 kilogram (kg) or 1,000 grams (g).



You can use a table to help convert metric units of mass.

Grams	Kilograms
1,000 g	1 kg

Find each missing number.

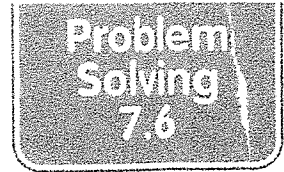
1.  $60 \text{ kg} = \underline{\hspace{2cm}} \text{ g}$       2.  $9,000 \text{ g} = \underline{\hspace{2cm}} \text{ kg}$       3.  $\underline{\hspace{2cm}} \text{ kg} = 10,000 \text{ g}$

4.  $\underline{\hspace{2cm}} \text{ kg} = 6,000 \text{ g}$       5.  $25,000 \text{ g} = \underline{\hspace{2cm}} \text{ kg}$       6.  $\underline{\hspace{2cm}} \text{ g} = 120 \text{ kg}$

7.  $12,000 \text{ g} = \underline{\hspace{2cm}} \text{ kg}$       8.  $\underline{\hspace{2cm}} \text{ kg} = 4,000 \text{ g}$       9.  $250,000 \text{ g} = \underline{\hspace{2cm}} \text{ kg}$

10.  $200 \text{ kg} = \underline{\hspace{2cm}} \text{ g}$       11.  $15,000 \text{ g} = \underline{\hspace{2cm}} \text{ kg}$       12.  $30 \text{ kg} = \underline{\hspace{2cm}} \text{ g}$

Name \_\_\_\_\_ Date \_\_\_\_\_



# Multiply Three-Digit Numbers by Two-Digit Numbers

Solve each problem.

Show your work.

1. The local Girl Scouts made crafts to sell at the annual craft and bake sale. If 32 beads were used to make each bead ornament, how many beads were used to make 205 bead ornaments?

\_\_\_\_\_

2. At the bake sale, cookies sold for 35 cents each. What was the total earned from cookie sales if the Girl Scouts sold 307 cookies?

\_\_\_\_\_

3. At the craft fair, the Girl Scouts sold raffle tickets for a chance to win a gift basket. Each troop sold 135 raffle tickets. If there are 14 troops, how many raffle tickets were sold?

\_\_\_\_\_

4. **Multistep** Madeline made pillows for the craft sale. It cost Madeline \$4.50 to make each pillow. Each pillow sold for \$9.65. If Madeline sold 21 pillows, how much was her profit? (**Hint:** You can find the amount of profit by subtracting the amount it cost to make an item from the amount the product sold for.)

\_\_\_\_\_

5. **Reasoning** What is the greatest and least possible product you can make using the digits 1, 3, 5, 6, and 7 in the multiplication problem below? Use each digit only once.

$$\square\square\square \times \square\square = ?$$

\_\_\_\_\_



# Multiply Greater Numbers

Find the product of 1,150 and 13.

**Step 1** Multiply the first factor by the ones digit of the second factor.

$$\begin{array}{r} 1,150 \\ \times \quad 13 \\ \hline 3450 \end{array} \quad 3 \times 1,150 = 3,450$$

**Step 2** Multiply the first factor by the tens digit of the second factor. Use a zero to show that you are multiplying by tens.

$$\begin{array}{r} 1,150 \\ \times \quad 13 \\ \hline 3450 \\ 11500 \end{array} \quad 10 \times 1,150 = 11,500$$

**Step 3** Add the products.

$$\begin{array}{r} 1,150 \\ \times \quad 13 \\ \hline 3450 \\ +11500 \\ \hline 14,950 \end{array}$$

**Multiply. Estimate to check your work.**

1.  $\begin{array}{r} 1,231 \\ \times \quad 11 \\ \hline \end{array}$

2.  $\begin{array}{r} 1,368 \\ \times \quad 12 \\ \hline \end{array}$

3.  $\begin{array}{r} 2,155 \\ \times \quad 22 \\ \hline \end{array}$

4.  $\begin{array}{r} 2,322 \\ \times \quad 32 \\ \hline \end{array}$

5.  $\begin{array}{r} 3,448 \\ \times \quad 21 \\ \hline \end{array}$

6.  $\begin{array}{r} 3,641 \\ \times \quad 23 \\ \hline \end{array}$

7.  $\begin{array}{r} 2,398 \\ \times \quad 36 \\ \hline \end{array}$

8.  $\begin{array}{r} \$72.95 \\ \times \quad 20 \\ \hline \end{array}$

9.  $80 \times 1,355$

\_\_\_\_\_

10.  $17 \times 3,559$

\_\_\_\_\_

11.  $40 \times \$29.95$

\_\_\_\_\_

12.  $51 \times 2,875$

\_\_\_\_\_

13.  $20 \times \$208.64$

\_\_\_\_\_

14.  $35 \times \$317.95$

\_\_\_\_\_

# Divide Money

Find  $\$6.95 \div 5$ .

Divide the dollars.

$$\begin{array}{r} 1 \\ 5 \overline{) \$6.95} \\ \underline{-5} \\ 1 \end{array}$$

Divide the dimes.

$$\begin{array}{r} 13 \\ 5 \overline{) \$6.95} \\ \underline{-5} \downarrow \\ 19 \\ \underline{-15} \\ 4 \end{array}$$

Divide the pennies.

$$\begin{array}{r} \$1.39 \\ 5 \overline{) \$6.95} \\ \underline{-5} \downarrow \\ 19 \\ \underline{-15} \downarrow \\ 45 \\ \underline{-45} \\ 0 \end{array}$$

Place the dollar sign and the decimal point in the quotient.

Estimate. Then divide.

1.  $3 \overline{) \$6.42}$

2.  $2 \overline{) \$5.32}$

3.  $5 \overline{) \$3.80}$

4.  $3 \overline{) \$8.34}$

5.  $4 \overline{) \$5.40}$

6.  $7 \overline{) \$9.73}$

7.  $2 \overline{) \$5.38}$

8.  $6 \overline{) \$7.68}$

9.  $3 \overline{) \$1.32}$

10.  $2 \overline{) \$6.58}$

11.  $5 \overline{) \$85}$

12.  $4 \overline{) \$6.12}$

13.  $2 \overline{) \$0.98}$

14.  $3 \overline{) \$1.65}$

15.  $4 \overline{) \$0.56}$

16.  $5 \overline{) \$9.85}$

# Zeros in the Quotient

$539 \div 5 = \square$

**Divide the hundreds.**

$$\begin{array}{r} 1 \\ 5 \overline{)539} \\ -5 \\ \hline 0 \end{array}$$

Multiply.

$1 \times 5 = 5$

Subtract.

$5 - 5 = 0$

Compare.

$0 < 5$

**Bring down the tens.**

**Divide the tens.**

$$\begin{array}{r} 10 \\ 5 \overline{)539} \\ -5 \downarrow \\ \hline 03 \\ -0 \\ \hline 3 \end{array}$$

Multiply.

$0 \times 5 = 0$

Subtract.

$3 - 0 = 3$

Compare.

$3 < 5$

**Bring down the ones.**

**Divide the ones.**

$$\begin{array}{r} 107 \text{ R}4 \\ 5 \overline{)539} \\ -5 \downarrow \\ \hline 03 \\ -0 \downarrow \\ \hline 39 \\ -35 \\ \hline 4 \end{array}$$

Multiply.

$7 \times 5 = 35$

Subtract.

$39 - 35 = 4$

Compare.

$4 < 5$

Write the remainder.

Divide. Check your answers.

1.  $7 \overline{)744}$

2.  $2 \overline{)615}$

3.  $3 \overline{)318}$

4.  $8 \overline{)859}$

5.  $4 \overline{)813}$

6.  $7 \overline{)564}$

7.  $2 \overline{)321}$

8.  $6 \overline{)624}$

9.  $3 \overline{)920}$

10.  $2 \overline{)410}$

11.  $5 \overline{)548}$

12.  $4 \overline{)835}$

13.  $6 \overline{)654}$

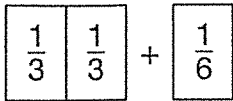
14.  $8 \overline{)723}$

15.  $7 \overline{)745}$

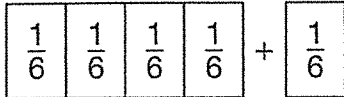
16.  $3 \overline{)307}$

# Add Fractions With Unlike Denominators

$$\frac{2}{3} + \frac{1}{6}$$



**Think:** I can use  $\frac{1}{6}$  pieces to make  $\frac{1}{3}$  pieces. That will make all the denominators the same.



It takes four  $\frac{1}{6}$  pieces to equal two  $\frac{1}{3}$  pieces.

There are five  $\frac{1}{6}$  pieces altogether.

$$\frac{4}{6} + \frac{1}{6} = \frac{5}{6}$$

*Handwritten notes:*  
 $\frac{2}{3} \times \frac{2}{2} = \frac{4}{6}$   
 $+\frac{1}{6} \times \frac{1}{1} = \frac{1}{6}$   


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 $\frac{5}{6}$   
 → Least common multiple

Find each sum. Use fraction pieces to help you.

1.  $\frac{1}{8} + \frac{3}{4}$

\_\_\_\_\_

2.  $\frac{1}{3} + \frac{5}{12}$

\_\_\_\_\_

3.  $\frac{4}{5} + \frac{1}{10}$

\_\_\_\_\_

4.  $\frac{1}{2} + \frac{1}{3}$

\_\_\_\_\_

5.  $\frac{3}{8} + \frac{1}{4}$

\_\_\_\_\_

6.  $\frac{1}{5} + \frac{9}{10}$

\_\_\_\_\_

7.  $\frac{2}{12} + \frac{3}{4}$

\_\_\_\_\_

8.  $\frac{1}{6} + \frac{7}{12}$

\_\_\_\_\_

9.  $\frac{4}{5} + \frac{6}{10}$

\_\_\_\_\_

10.  $\frac{2}{3} + \frac{1}{6}$

\_\_\_\_\_

11.  $\frac{5}{8} + \frac{1}{4}$

\_\_\_\_\_

12.  $\frac{1}{4} + \frac{1}{12}$

\_\_\_\_\_

# Subtract Fractions With Unlike Denominators

$\frac{1}{5} - \frac{1}{10}$

Compare fifths to tenths.

$\frac{1}{5} = \frac{2}{10}$

Replace  $\frac{1}{5}$  with two  $\frac{1}{10}$  pieces so that the denominators are the same.

Subtract the tenths.

$\frac{2}{10} - \frac{1}{10} = \frac{1}{10}$

So,  $\frac{1}{5} - \frac{1}{10} = \frac{1}{10}$

$\frac{1}{5} - \frac{1}{10}$

$\frac{1}{5} = \frac{1}{10} + \frac{1}{10}$

$\frac{1}{10} - \frac{1}{10}$

$\frac{1}{5} \times \frac{2}{2} = \frac{2}{10}$

$-\frac{1}{10} \times \frac{1}{1} = \frac{1}{10}$

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$\frac{1}{10}$

Use fraction pieces to help you find each difference.

1.  $\frac{5}{6} - \frac{5}{12}$

\_\_\_\_\_

2.  $\frac{2}{3} - \frac{1}{6}$

\_\_\_\_\_

3.  $\frac{7}{10} - \frac{3}{5}$

\_\_\_\_\_

4.  $\frac{11}{12} - \frac{5}{6}$

\_\_\_\_\_

5.  $\frac{3}{4} - \frac{5}{8}$

\_\_\_\_\_

6.  $\frac{7}{9} - \frac{1}{3}$

\_\_\_\_\_

7.  $\frac{4}{5} - \frac{1}{10}$

\_\_\_\_\_

8.  $\frac{2}{3} - \frac{1}{6}$

\_\_\_\_\_

9.  $\frac{4}{6} - \frac{5}{12}$

\_\_\_\_\_

10.  $\frac{1}{2} - \frac{3}{10}$

\_\_\_\_\_

11.  $\frac{5}{6} - \frac{1}{3}$

\_\_\_\_\_

12.  $\frac{5}{10} - \frac{1}{2}$

\_\_\_\_\_