

# 5th Grade Going Into 6th Grade Summer Math Packet

Dear Parents,

Next school year, your child will be in 6th grade! In this packet you will find practice of the 5th grade skills that are needed prior to starting 6th grade math. Here are some additional resources to assist your child.

[IXL.com](https://www.ixl.com)

[Khan Academy](https://www.khanacademy.com)

[Math Help](#)

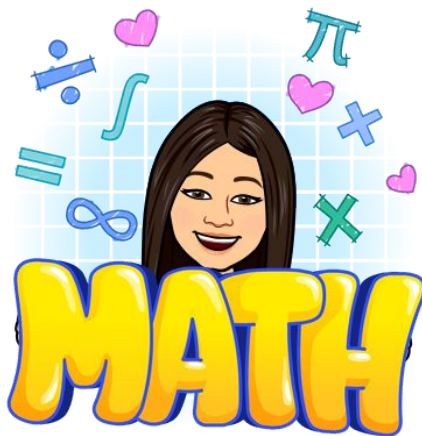
[ABCYa.com](https://www.abcy.com)

[Math Playground](#)

[Fun Brain](#)

[Mr.Nussbaum](#)

Please complete two- three pages in this packet each week.  
Remember to show your work. NO CALCULATORS!







# Decimals – Adding and Subtracting

Rules:

- 1) Line up decimal points, if a number does not have a decimal point it is a whole number with the decimal point at the end.
- 2) Annex zeros to hold place.
- 3) Add or subtract vertically.
- 4) Bring down the decimal point.

$$4.1 + 3 + 5.61 + 21$$

$$4.10$$

$$3.00$$

$$5.61$$

$$16 - 7.498$$

$$16.000$$

$$\begin{array}{r} 16.000 \\ - 7.498 \\ \hline \end{array}$$

$$8.502$$

**NO CALCULATOR! SHOW ALL WORK!**

1. $42.78 + 19.56$	2. $0.0997 + 1.4$	3. $6.29 + 5$
4. $0.663 + 1.58$	5. $\$62.74 + \$1.75 + \$12$	6. $0.0674 + 0.12 + 0.0098$
7. $40.75 - 17.46$	8. $0.95 - 0.68$	9. $6 - 3.8$
10. $\$60 - \$31.74$	11. $\$12.36 - \$8.75$	12. $21.007 - 4.678$

# Decimals – Multiplying and Dividing

Rules:

## Multiplying

- 1) Line up digits, starting on the right.
- 2) Multiply
- 3) Place the decimal point in the answer by starting at the right and moving a number of places equal to the sum of the decimal places in both numbers multiplied.

$$\begin{array}{r} (6.432)(4.15) \\ 6.432 \text{ (3 decimal places)} \\ \times 4.15 \text{ (2 decimal places)} \\ \hline 32160 \\ 64320 \\ \hline 2572800 \\ 26.69280 \text{ (5 decimal places)} \end{array}$$

## Dividing

- 1) If the divisor is not a whole number, move the decimal point To the right to make it a whole number and move the decimal Point in the dividend the same number of places.
- 2) Divide.
- 3) Bring the decimal point up.

$$\begin{array}{r} 27.216 \div 4.8 \\ \hline 5.67 \\ 48.)272.16 \\ \underline{-240} \phantom{00} \\ 321 \\ \underline{-288} \phantom{00} \\ 336 \\ \underline{-336} \phantom{00} \\ 0 \end{array}$$

**NO CALCULATOR! SHOW ALL WORK!**

1.  $5.4 \times 0.07$

2.  $5.9 \times 1.2$

3.  $69.3 \times 0.15$

4.  $3.96 \times 3.3$

5.  $9.01 \times 0.48$

6.  $0.24 \div 0.8$

7.  $84.48 \div 0.88$

8.  $6.56 \div 4$

# Equivalent Fractions

To find an equivalent fraction multiply or divide the numerator and denominator by the same value.

$$\frac{1}{2} = \frac{4}{8}$$

*(Note: In the original image, the 1 is green, 2 is orange, 4 is pink, and 8 is green. Curved arrows labeled 'x4' connect 1 to 4 and 2 to 8.)*

$$\frac{6}{48} \xrightarrow{\div 2} \frac{3}{24}$$

*(Note: In the original image, the 6 and 48 are green. A blue arrow labeled '÷ 2' points to the simplified fraction.)*

$$\frac{3}{4} = \frac{6}{8} = \frac{9}{12} = \frac{12}{16}$$

*(Note: In the original image, the fractions are connected by orange curved arrows. From 3/4 to 6/8 (x2), 3/4 to 9/12 (x3), 3/4 to 12/16 (x4), 6/8 to 9/12 (x3/2), 6/8 to 12/16 (x2), 9/12 to 12/16 (x4/3).)*

Name three equivalent fractions to the one given:

1.  $\frac{4}{5}$

2.  $\frac{10}{15}$

3.  $\frac{1}{7}$

4.  $\frac{16}{40}$

5.  $\frac{12}{30}$

6.  $\frac{6}{8}$

7.  $\frac{2}{9}$

8.  $\frac{14}{35}$

9.  $\frac{18}{28}$

10.  $\frac{80}{120}$

# Converting Mixed Numbers to Improper Fractions

Multiply the whole number by the denominator and add the numerator.

Keep the same denominator.

Then add.

$$4\frac{1}{3} = \frac{13}{3}$$

Multiply.

Convert  $\frac{20}{3}$  to a mixed number

Divide the numerator by the denominator

$$20 \div 3 = 6 \text{ plus } 2 \text{ remainder}$$

$$\frac{20}{3} = 6\frac{2}{3}$$

6 becomes the whole number  
2 is the numerator of the fraction as shown  
3 is the denominator

Convert to Mixed Number or Improper Fractions:

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

2.  $\frac{15}{2} =$

3.  $7\frac{2}{3} =$

4.  $\frac{31}{6} =$

5.  $8\frac{3}{5} =$

6.  $\frac{74}{9} =$

7.  $2\frac{7}{9} =$

8.  $\frac{49}{11} =$

9.  $12\frac{5}{10} =$

10.  $\frac{122}{13} =$



# Fractions – Adding and Subtracting

$$\frac{3}{4} + \frac{1}{3} =$$
$$\frac{9}{12} + \frac{4}{12} =$$
$$\frac{13}{12} = 1\frac{1}{12}$$

If the denominators are different, find the least common multiple of the two numbers and convert both fractions to the matching common denominator.

$$\frac{5}{6} - \frac{3}{9} =$$
$$\frac{15}{18} - \frac{6}{18} =$$
$$\frac{11}{18}$$

**NO CALCULATOR! SHOW ALL WORK!**

1. $\frac{2}{3} + \frac{1}{5} =$	2. $\frac{1}{7} + \frac{1}{3} =$	3. $\frac{2}{10} + \frac{1}{2} =$
4. $\frac{7}{8} - \frac{1}{2} =$	5. $\frac{5}{6} - \frac{2}{3} =$	6. $\frac{5}{9} - \frac{2}{4} =$
7. $\frac{7}{12} + \frac{2}{9} =$	8. $\frac{14}{15} + \frac{3}{5} =$	9. $\frac{9}{16} + \frac{5}{24} =$
10. $\frac{12}{16} - \frac{1}{4} =$	11. $\frac{27}{33} - \frac{5}{11} =$	12. $\frac{15}{18} - \frac{4}{9} =$

# Fractions – Multiplying

Multiply the numerators

$$\frac{2}{5} \times \frac{3}{4} = \frac{6}{20}$$

Multiply the denominators

$$\frac{2}{5} \times \frac{3}{4} = \frac{6}{20}$$

Reduce the fraction if necessary

$$\frac{6}{20} = \frac{3}{10}$$

**NO CALCULATOR! SHOW ALL WORK!**

1. $\frac{1}{3} \times \frac{1}{5} =$	2. $\frac{2}{7} \times \frac{2}{5} =$	3. $\frac{4}{9} \times \frac{1}{2} =$
4. $\frac{3}{8} \times \frac{3}{4} =$	5. $\frac{9}{10} \times \frac{1}{9} =$	6. $\frac{7}{12} \times \frac{2}{5} =$
7. $\frac{6}{11} \times \frac{2}{4} =$	8. $\frac{5}{6} \times \frac{2}{9} =$	9. $\frac{12}{20} \times \frac{3}{7} =$
10. $\frac{5}{13} \times \frac{4}{6} =$	11. $\frac{15}{25} \times \frac{5}{15} =$	12. $\frac{6}{10} \times \frac{3}{9} =$



# Geometric Terminology

Match the geometric terms on the left side of the page to the correct shape on the right. Use a ruler or a straightedge to draw a line from the term to the shape (dot to dot). Your line will pass through a number and a letter. The number tells you where to write your letter in the code boxes to answer the riddle below.



**What should you do if Godzilla suddenly starts to cry?**

pentagon •														•	
ray •														•	
intersecting lines •		<b>8</b>												•	
rectangle •		<b>12</b>												•	
line •			<b>3</b>											•	
triangle •				<b>6</b>										•	
point •					<b>14</b>	<b>2</b>								•	
perpendicular lines •		<b>10</b>												•	
circle •														•	
line segment •			<b>4</b>											•	
square •														•	
hexagon •		<b>13</b>												•	
parallel lines •														•	
octagon •														•	

1	2	3	4
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5	6
---	---

7	8	9	10	11	12	13	14
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# Alert Converter

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

Convert small units of measure to large units. Example: inches into feet → 12 in. = 1 ft. → total inches in the first problem below ÷ 12 = number of feet. Use the chart for reference.

12 in. = 1 ft.

7 days = 1 week

32 oz. = 1 qt.

36 in. = 1 yd.

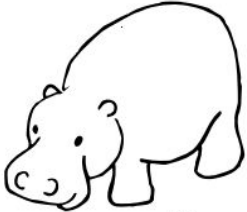
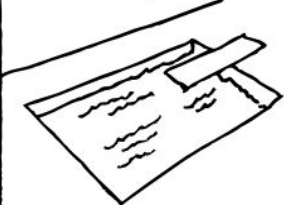




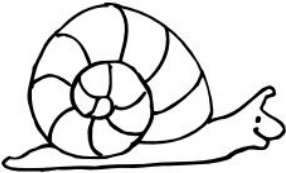





8 oz. = 1 cup

12 units = 1 doz.

60 min. = 1 hr.

16 oz. = 1 lb.

8 pts. = 1 gal.

<p>1. 132 inches</p>  <p>_____ feet</p>	<p>2. 300 pints</p>  <p>_____ gallons</p>	<p>3. 120 ounces</p>  <p>_____ cups</p>	<p>4. 1440 minutes</p>  <p>_____ hours</p>
<p>5. 48 pints</p>  <p>_____ gallons</p>	<p>6. 45843 days</p>  <p>_____ weeks</p>	<p>7. 1800 inches</p>  <p>_____ yards</p>	<p>8. 888 inches</p>  <p>_____ feet</p>
<p>9. 1068 units</p>  <p>_____ dozen</p>	<p>10. 3168 ounces</p>  <p>_____ pounds</p>	<p>11. 32,000 oz.</p>  <p>_____ pounds</p>	<p>12. 2760 inches</p>  <p>_____ feet</p>

# A Stinky Riddle

Name \_\_\_\_\_

Date \_\_\_\_\_



**Riddle: How do  
skunks measure  
length?**

Answer each problem. Then use the Decoder to solve the riddle by filling in the spaces at the bottom of the page.

- 1 In the number 52,370, the digit 2 is in which place?  
\_\_\_\_\_
- 2 In the number 619,246, which digit is in the hundred thousands place? \_\_\_\_\_
- 3 In the number 2,027,635, the digit 3 is in which place? \_\_\_\_\_
- 4 In the number 37,196,511, which digit is in the millions place? \_\_\_\_\_
- 5 In the number 402,819,335, which digit is in the ten millions place? \_\_\_\_\_
- 6 In the number 9,817,248,100, which place is the digit 9 in? \_\_\_\_\_
- 7 In the number 6,543,210,789, which place is the digit 5 in? \_\_\_\_\_
- 8 Which number is greater: 727,912 or 699,534?  
\_\_\_\_\_
- 9 Which number is smaller: 4,847,266 or 5,000,122?  
\_\_\_\_\_
- 10 Which number is greater: 7,446,726,012 or 7,446,732,011? \_\_\_\_\_

## Decoder

7,446,726,012 ....	<b>K</b>
ones .....	<b>P</b>
1 .....	<b>W</b>
4,847,266 .....	<b>T</b>
7 .....	<b>N</b>
thousands .....	<b>I</b>
699,534 .....	<b>A</b>
hundreds .....	<b>O</b>
7,446,732,011.....	<b>T</b>
billions.....	<b>R</b>
tens .....	<b>S</b>
ten millions .....	<b>B</b>
6 .....	<b>E</b>
5,000,122 .....	<b>D</b>
ten thousands ....	<b>V</b>
0 .....	<b>E</b>
hundred millions ..	<b>M</b>
9 .....	<b>F</b>
5 .....	<b>H</b>
727,912 .....	<b>E</b>

IN "SC \_\_\_\_\_"

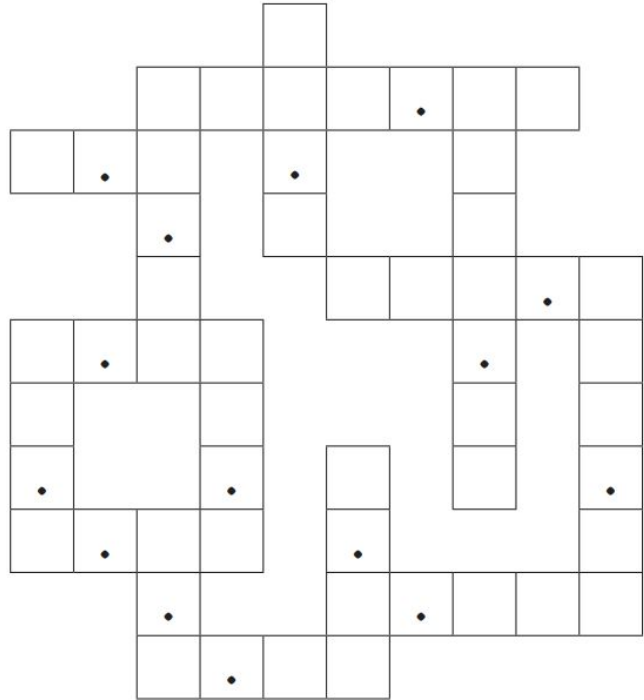
8    4    9    1    7    5    10    2    6    3





## Every Number Has Its Place

Write each decimal in standard form on the lines below. Fit the number into the puzzle. The decimal points occupy one space and are already written in the puzzle.



1. **three and forty-four hundredths**

\_\_\_\_\_

2. **four and six tenths**

\_\_\_\_\_

3. **forty-one and seven tenths**

\_\_\_\_\_

4. **four thousand sixteen and thirty-two hundredths**

\_\_\_\_\_

5. **nine hundred forty-seven and thirty-six hundredths**

\_\_\_\_\_

6. **six and five tenths**

\_\_\_\_\_

7. **fifty-six and four tenths**

\_\_\_\_\_

8. **one and thirty-five hundredths**

\_\_\_\_\_

9. **one and six thousandths**

\_\_\_\_\_

10. **forty-five and sixty-three hundredths**

\_\_\_\_\_

11. **fifteen and three tenths**

\_\_\_\_\_

12. **three hundred seventeen and nine tenths**

\_\_\_\_\_

13. **three thousand seven and fifty-five hundredths**

\_\_\_\_\_

14. **six and nineteen hundredths**

\_\_\_\_\_

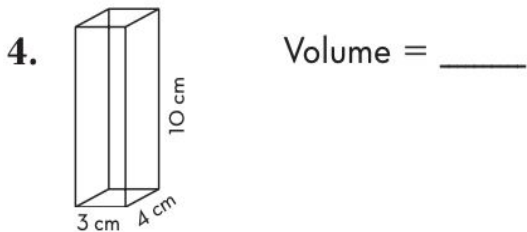
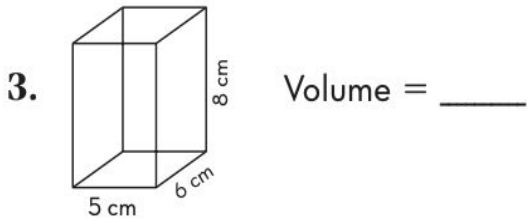
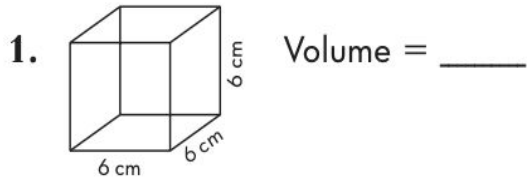
15. **six and ninety-nine hundredths**

\_\_\_\_\_

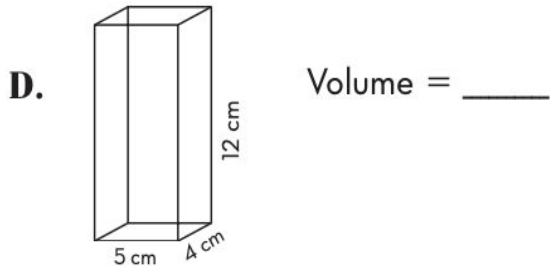
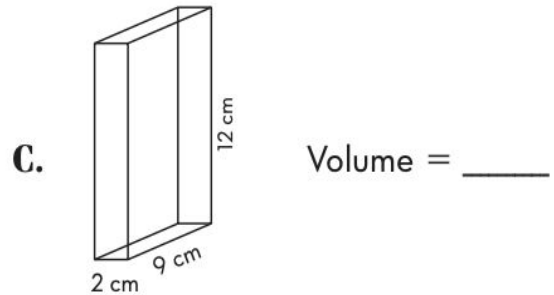
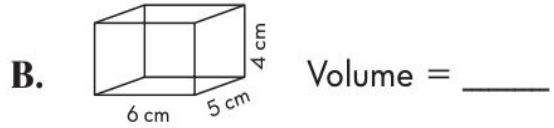
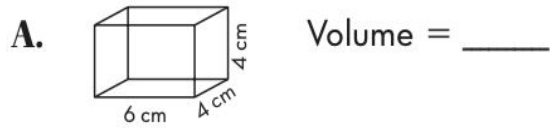
# Finding the Volume of Rectangular Prisms

Find the volume of each rectangular prism. Draw a line to match each answer on the left with one on the right.

**LEFT**



**RIGHT**



## TRIPLE MATCH Challenge

A set of 12 identical cubes have sides of 2 centimeters. What is the total volume of all the cubes? \_\_\_\_\_

Circle the answers that match above.