

Summer Learning Packet

Students Entering Grade 6

The purpose of summer learning packets is to provide families with some guidance and structure for academic work over the summer months. Working on academic tasks over the summer will help students practice and reinforce essential skills, working to lessen the “summer slide” – or regression in skills – that is often seen when students disengage from all academic work for an extended period of time. This packet provides directions for the summer reading and math assignments.

READING

All incoming 6th graders are assigned to read at least one fiction novel and one nonfiction book over the summer.

1. Fiction: Novel of student choice
 - Read and complete the attached book report form.
 2. Nonfiction: One nonfiction book of choice
 - Create a report that gives the title, author, and date of publication.
 - Write a four-to-six sentence summary paragraph of what you learned.
 - List 10 facts that you found interesting. Be ready to discuss your book in a small group.
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MATH

1. Math Skills Packet: Students entering 6th grade are assigned the attached packet of worksheets. Show all work and mathematical steps (can be done on a separate sheet of paper or on the handout if space allows).
 2. Optional: Additionally, students can pursue additional skill building through online resources such as Khan Academy or others.
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Summer learning assignments for both reading and math will be collected during the first week of school in the fall.

**Students Entering
Sixth Grade**

Summer Math Packet

Name _____

Name -----

Review

2

Adding and Subtracting Decimals

Find $1.7 + 2.45$.Find $36.57 - 4.6$.

Line up the decimal points.

$$\begin{array}{r}
 \begin{array}{c} \downarrow \\ 1 \cdot 7 \end{array} \quad \begin{array}{c} \downarrow \\ 1.70 \end{array} \\
 + 2.45 \quad + 2.45 \\
 \hline 4.15
 \end{array}$$

Write zeros to show place value.

t Place decimal point in answer.

Line up the decimal points.

$$\begin{array}{r}
 \begin{array}{c} \downarrow \\ 36.57 \end{array} \quad \begin{array}{c} \downarrow \\ 3.47 \end{array} \\
 - 4.6 \quad - 4.60 \\
 \hline 31.97
 \end{array}$$

Write zeros to show place value.

t Place decimal point in answer.

Find each sum or difference.

1.
$$\begin{array}{r}
 \begin{array}{c} \downarrow \\ 2.65 \end{array} \\
 + 13.30 \\
 \hline
 \end{array}$$

2.
$$\begin{array}{r}
 \begin{array}{c} \downarrow \\ 14.10 \end{array} \\
 - 3.05 \\
 \hline
 \end{array}$$

3.
$$\begin{array}{r}
 \begin{array}{c} \downarrow \\ 744 \end{array} \\
 + 36.2 \\
 \hline
 \end{array}$$

4.
$$\begin{array}{r}
 \begin{array}{c} \downarrow \\ 9 \end{array} \\
 - 0.6 \\
 \hline
 \end{array}$$

5.
$$\begin{array}{r}
 \begin{array}{c} \downarrow \\ 8.97 \end{array} \\
 + 66 \\
 \hline
 \end{array}$$

6.
$$\begin{array}{r}
 \begin{array}{c} \downarrow \\ 100 \end{array} \\
 - 0.22 \\
 \hline
 \end{array}$$

7.
$$\begin{array}{r}
 \begin{array}{c} \downarrow \\ 6.8 \end{array} \\
 + 237.29 \\
 \hline
 \end{array}$$

8.
$$\begin{array}{r}
 \begin{array}{c} \downarrow \\ 0.5 \end{array} \\
 - 0.23 \\
 \hline
 \end{array}$$

9. $15.4 - 8 = \underline{\hspace{2cm}}$

10. $15 - 2.54 = \underline{\hspace{2cm}}$

11. $1.34 + 4.1 = \underline{\hspace{2cm}}$

12. $133.01 - 5.6 = \underline{\hspace{2cm}}$

13. $448 + 1.75 + 80.3 = \underline{\hspace{2cm}}$

14. $12.3 + 0.61 + 100 = \underline{\hspace{2cm}}$

15. On the 3-days of their vacation, the Davis family traveled 417 mi, 45.3 mi, and 366.9 mi. How far did they travel all together? $\underline{\hspace{2cm}}$ 16. Etta bought a calculator for \$15. Glenn found the same model for \$9.79. How much more did Etta pay than Glenn did? $\underline{\hspace{2cm}}$

Name _____

Review

4

Multiplying with Decimals

Find 4.3×2.7 .

<i>Multiply as you would with whole numbers.</i>	<i>Count the number of decimal places in both factors. The total is the number of decimal places in the product.</i>
$\begin{array}{r} 2 \\ 4.3 \\ \times 2.7 \\ \hline 301 \\ 860 \\ \hline 1161 \end{array}$	$\begin{array}{r} 4.3 & \leftarrow & 1 \text{ decimal place} \\ \times 2.7 & \leftarrow & +1 \text{ decimal place} \\ \hline 11.61 & \leftarrow & 2 \text{ decimal places} \end{array}$

Find each product.

$$\begin{array}{r} 1. 14 \\ \times 8.8 \\ \hline 112 \\ 1120 \end{array}$$

$$\begin{array}{r} 2. 1.6 \\ \times .9 \\ \hline \end{array}$$

$$\begin{array}{r} 3. 0.4 \\ \times 3.2 \\ \hline \end{array}$$

$$\begin{array}{r} 4. 0.05 \\ \times 0.3 \\ \hline \end{array}$$

$$\begin{array}{r} 5. 2.15 \\ \times 8.3 \\ \hline \end{array}$$

$$\begin{array}{r} 6. 3.3 \\ \times 0.12 \\ \hline \end{array}$$

$$\begin{array}{r} 7. 0.51 \\ \times 4.2 \\ \hline \end{array}$$

$$\begin{array}{r} 8. 1.35 \\ \times 13 \\ \hline \end{array}$$

$$9. 23 \times 0.47 = \underline{\hspace{2cm}}$$

$$10. 0.9 \times 5 = \underline{\hspace{2cm}}$$

$$11. 168 \times 2.25 = \underline{\hspace{2cm}}$$

$$12. 0.8 \times 0.11 = \underline{\hspace{2cm}}$$

$$13. 20 \times 20.2 = \underline{\hspace{2cm}}$$

$$14. 4.9 \times 0.3 = \underline{\hspace{2cm}}$$

15. A roll of paper towels contained 250 sheets. Each sheet was 8.75 inches long. How long was the roll? _____

16. Tania bought 3 new sweaters. Each sold for \$19.99. How much did she spend? _____

Name _____

Review
6

Dividing with Decimals

Find $36.8 \div 16$.

<p>↓ 2. 1 6) 3 6 . 8</p> <p>Place the decimal point. ← Think: 20×40</p> <p>Try 2 in the quotient.</p>	<p>2 . 3 1 6) 3 6 . 8 - 3 2 4 8 - 4 8 0</p> <p>Multiply 2×16. Subtract. Bring down 8. Multiply 3×16. Subtract.</p>
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Find each quotient.

1. $6) 1 \underline{3} . 8$

$\begin{array}{r} 2 \\ - 1 \boxed{2} \\ \hline \boxed{1} \\ \boxed{1} \\ \hline \boxed{0} \end{array}$

2. $6) 1 3 1 . 4$

3. $9) 1 4 1 . 3$

4. $5) 3 8 8 . 5$

5. $7) 6.6 9 . 2$

6. $28) 2 6 3 . 2$

7. $41) 2 7 4 . 7$

8. $7) 3 4 . 2 3$

9. $269.12 \div 8 =$ _____

10. $311.56 \div 4 =$ _____

11. $2,229.62 \div 46 =$ _____

12. $1,449.09 \div 81 =$ _____

13. A photographer bought 36 rolls of film for \$136.44.
What was the price of one roll? _____

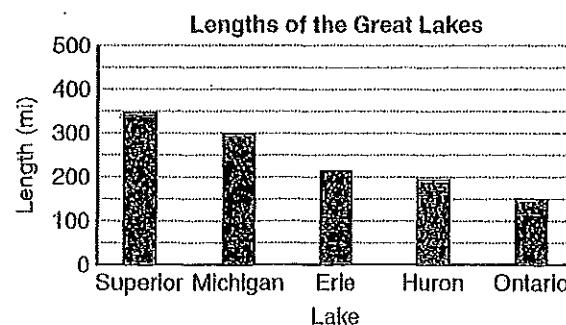
14. Four students each ran 100 m in a 400-m relay race.
The team's total time was 49.44 sec. Find the average
time of each runner. _____

Interpreting Data

The **bar graph** shows the lengths in miles of the Great Lakes. Lengths of bars represent lengths of lakes.

Which is the shortest Great Lake?

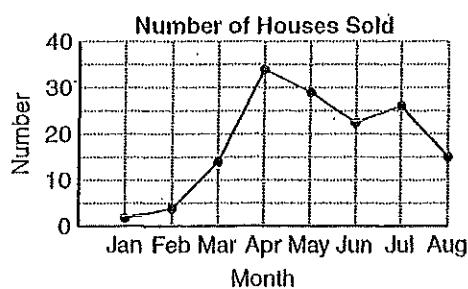
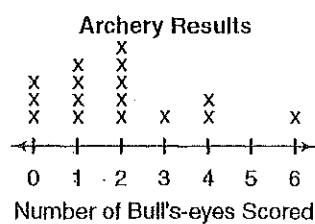
The shortest lake is Lake Ontario.



Use the graphs to answer each question.

1. How many archers scored 4 bull's eyes?

2. What was the most common number of bull's-eyes scored?

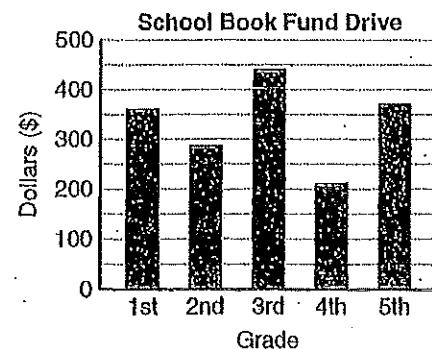


3. In which month were the most houses sold?

4. In which month were about the same number sold as were sold in August?

5. Which grades raised about the same amount for the school book drive?

6. The school's goal was to raise \$1,500. About how much did they raise in all?



Name _____

Review
10
Adding and Subtracting Fractions
Find $\frac{2}{3} + \frac{1}{6}$

3	6	9	12	15
6	12	18	24	30

Multiples of 3

Multiples of 6

Find $\frac{1}{4} - \frac{1}{5}$

4	8	12	16	20
5	10	15	20	25

Multiples of 4

Multiples of 5

The least common denominator is 6.

Write equivalent fractions. $\frac{2}{3} = \frac{4}{6}$

Add.

$$\begin{array}{r} + \frac{1}{6} = \frac{1}{6} \\ \hline \frac{5}{6} \end{array}$$

The least common denominator is 20.

Write equivalent fractions. $\frac{1}{4} = \frac{5}{20}$

Subtract.

$$\begin{array}{r} - \frac{1}{5} = \frac{4}{20} \\ \hline \frac{1}{20} \end{array}$$

Find each sum or difference.

1. $\frac{1}{4} + \frac{2}{3} = \underline{\hspace{2cm}}$

4			
3			

2. $\frac{11}{12} - \frac{5}{6} = \underline{\hspace{2cm}}$

12			
6			

3. $\frac{1}{3} + \frac{4}{9} = \underline{\hspace{2cm}}$

4. $\frac{3}{7} + \frac{2}{7} = \underline{\hspace{2cm}}$ 5. $\frac{11}{12} - \frac{5}{12} = \underline{\hspace{2cm}}$ 6. $\frac{1}{2} + \frac{1}{3} = \underline{\hspace{2cm}}$ 7. $\frac{1}{3} - \frac{1}{5} = \underline{\hspace{2cm}}$

8. $\frac{3}{8} - \frac{1}{6} = \underline{\hspace{2cm}}$ 9. $\frac{3}{5} + \frac{3}{10} = \underline{\hspace{2cm}}$ 10. $\frac{1}{2} + \frac{2}{5} = \underline{\hspace{2cm}}$ 11. $\frac{2}{3} - \frac{1}{4} = \underline{\hspace{2cm}}$

12. Meg practiced the piano for $\frac{5}{12}$ hr. She did homework for $\frac{3}{4}$ hr. How much longer did she do homework than she practiced the piano? _____

Find each product. Show your work.

1. 238×5	2. 832×156	3. $4,899 \times 67$	4. 756×300
5. 19×863	6. 188×732	7. $3,249 \times 173$	8. 609×840

Find each quotient. Show your work.

9. $876 \div 2$	10. $9,473 \div 5$	11. $396 \div 24$	12. $8,911 \div 45$
13. $700 \div 12$	14. $1,065 \div 15$	15. $2,737 \div 305$	16. $4,516 \div 22$

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?	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?
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Multiplying Whole Numbers

1. 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

ex: $3,481 \times 142$

$$\begin{array}{r} 3,481 \\ \times 142 \\ \hline 6962 \\ + 139240 \\ \hline 494,302 \end{array}$$

Dividing Whole Numbers

1. 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: $6,425 \div 21$

$$\begin{array}{r} 306 \text{ R } 20 \\ 21 \overline{)6425} \\ 63 \\ \hline 12 \\ 12 \\ \hline 0 \\ 12 \\ \hline 105 \\ 105 \\ \hline 20 \end{array}$$

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

52.9⁴3

less than 5, so the 4 stays the same

52.900

drop the 3

52.9

Word Form & Expanded Form

1. Word Form: write the whole number in word form, translate the decimal to "and", & 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 \bigcirc 13.74

$13 = 13$

$13.7 = 13.7$

$13.70 < 13.74$

So, 13.702 \bigcirc 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
3.962	27.	28.
29.	$100 + 2 + 0.09$	30.
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 <input type="circle"/> 0.13	40. 9.52 <input type="circle"/> 90.13	41. 24.13 <input type="circle"/> 24.130	42. 15.96 <input type="circle"/> 15.906
43. 0.964 <input type="circle"/> 1	44. 6.83 <input type="circle"/> 6.825	45. 7.256 <input type="circle"/> 7.24	46. 32.9 <input type="circle"/> 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
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Adding & Subtracting Decimals

1. Write the problem vertically, lining up the decimal points
2. Add zeros, if necessary
3. Add or subtract the numbers as if they were whole numbers
4. Bring the decimal point straight down

ex: $12.8 - 1.52$

$$\begin{array}{r} 12.80 \\ - 1.52 \\ \hline 11.28 \end{array}$$

Multiplying Decimals

1. Write the problem vertically with the numbers lined up to the right (decimals do NOT need to be lined up)
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

ex: 3.24×0.8

$$\begin{array}{r} 3.24 \\ \times 0.8 \\ \hline 2592 \end{array}$$

1 decimal place
1 decimal place
2 decimal places

2.592

Dividing Decimals

1. 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

ex: $32.3 \div 0.5$

$$\begin{array}{r} 64.6 \\ 0.5) 32.30 \\ - 30 \\ \hline 23 \\ - 20 \\ \hline 30 \\ - 30 \\ \hline 0 \end{array}$$

Find each sum or difference. Show your work.

44. $8.74 + 10.36$	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.

57. 4.5×6	58. $144.8 \div 4$	59. 2.7×0.8	60. $6.2 \div 0.04$
61. 8.9×2.5	62. $15.8 \div 0.5$	63. 14.8×0.12	64. $16.2 \div 1.2$

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?	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?
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**Students Entering
Sixth Grade**

Reading Book Report for a *FICTION* novel

Name _____

My Book Report

Name _____ Date _____

Book Title _____ No. of Pages _____

Author _____ Genre _____

Publisher _____

Names of Main Characters

Where does the story take place? _____

When does the story take place? _____

Character Study

Choose one main character to describe. (Use complete sentences)

Name of Character _____

1. Physical Likeness (What does the character look like?)

2. Personality (What kind of person is the character?)

3. Desire (What does he/she want?)

4. Accomplishment (How does he/she get what he/she wants? Or what keeps he/she from getting it?)

5. How does the main character change?

Vocabulary

As you read, find three words that you don't understand, or are difficult. Look them up and give the following information.

1. Word _____ Page Number _____

Definition _____

Your own sentence:

2. Word _____ Page Number _____

Definition _____

Your own sentence:

3. Word _____ Page Number _____

Definition _____

Your own sentence:

Your Opinion _____ Did you like the book? _____

Why or why not? _____

Tell an interesting fact or lesson you learned from this story. _____