This is the grade 3 summer Math packet. There are several concepts to be practiced over the summer months to prepare you for fourth grade. Complete this packet and return it to your teacher when you return to school in August. At the bottom of this page is a ruler that may be cut out and used to answer measurement questions.
Place Value

1. 44 people bought new cars in June. Ten more people bought new cars in August. How many people bought new cars in August?

   ○ 34
   ○ 45
   ○ 43
   ○ 54

2. Which means the same as 700 + 40 + 5?

   ○ 7,405
   ○ 7,045
   ○ 745
   ○ 9705

3. Which means the same as 32?

   ○ 3 tens and 12 ones
   ○ 2 tens and 12 ones
   ○ 3 tens and 0 ones
   ○ 2 tens and 3 ones

4. What is the value of 5 in 517?

   ○ 500
   ○ 5
   ○ 50
   ○ 5000

Pictorial Representation of Numbers

1. What is the number shown by the following picture using place value blocks?

   ○ 263
   ○ 236
   ○ 632
   ○ 326

2. What fraction of the triangles below are shaded?

   ○ \( \frac{2}{4} \)
   ○ \( \frac{2}{6} \)
   ○ \( \frac{6}{2} \)
   ○ \( \frac{4}{6} \)
Order, Magnitude and Rounding of Numbers

Use the following table to answer the next question.

<table>
<thead>
<tr>
<th>Person</th>
<th>Apples Picked in 15 Minutes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tommy</td>
<td>25</td>
</tr>
<tr>
<td>Kayla</td>
<td>37</td>
</tr>
<tr>
<td>Isaiah</td>
<td>34</td>
</tr>
<tr>
<td>Amy</td>
<td>28</td>
</tr>
</tbody>
</table>

1. If the names were listed in order from least to greatest, the last name on the list would be who?
   - Tommy
   - Kayla
   - Isaiah
   - Amy

Use the following chart to answer the next question.

<table>
<thead>
<tr>
<th>Student</th>
<th>Minutes Read in One Night</th>
</tr>
</thead>
<tbody>
<tr>
<td>Luis</td>
<td>34</td>
</tr>
<tr>
<td>Gus</td>
<td>23</td>
</tr>
<tr>
<td>Emily</td>
<td>43</td>
</tr>
<tr>
<td>Davina</td>
<td>32</td>
</tr>
</tbody>
</table>

2. Which 2 students read for a total of 66 minutes?
   - Luis and Davina
   - Gus and Emily
   - Luis and Gus
   - Davina and Emily

3. Carrie held her breath for 81 seconds. This number is about
   - 70
   - 80
   - 90
   - 100

4. Robert went away to summer camp for 23 days. This number is
   - A little more than 20
   - A little less than 20
   - A little more than 30
   - A little less than 30

Models for Operations

1. Which number sentence goes with this picture?
   - 20 – 5
   - 4 + 5
   - 20 + 4
   - 4 x 5
2. Write a story problem that can be solved using the number sentence

\[ 17 + 13 = \square \]

3. Sue painted 13 trees in her pictures. Then she painted 6 more trees. Which number sentence should be used to find the total number of trees Sue painted?

- \( 13 \times 6 \)
- \( 13 \div 6 \)
- \( 13 + 6 \)
- \( 13 - 6 \)

Basic Facts

- \( 5 + 6 = \square \)
- \( 9 - 3 = \square \)
- \( 2 + 13 = \square \)
- \( 4 + 10 = \square \)
- \( 14 - 7 = \square \)
- \( 8 + 8 = \square \)

Strand 7 – Computation with Whole Numbers and Decimals

\[
\begin{array}{ccc}
94 & 88 & 62 \\
+53 & +69 & -35 \\
\end{array}
\]

\[
\begin{array}{ccc}
$3.89 & $5.00 & 5.89 \\
+$4.37 & -$2.65 & $6.73 \\
\end{array}
\]
### Story Problems

1. Fran baked 12 sugar cookies, 24 muffins and 35 chocolate chip cookies. How many more chocolate chip cookies did Fran bake than sugar cookies?

   - 11
   - 12
   - 23
   - 24

2. Lisa cleaned out her desk and found 12 pencils, 2 pens, 2 rulers, and 3 dimes. How many pencils and pens did she find?

   - 5
   - 7
   - 14
   - 22

### Estimating Solutions

1. Jack spent between $5 and $7 at the snack bar each day in the past 5 days. What is the total amount he could have spent in those five days?

   - $20
   - $30
   - $40
   - $45

2. Missy sold BETWEEN 7 and 12 glasses of lemonade every hour at her lemonade stand. If she sold lemonade for 2 hours how many glasses could she have sold?

   - 30
   - 25
   - 20
   - 10

3. It took Mike 48 minutes to complete his homework last night. It took his older brother Joe 62 minutes to finish his. ABOUT how many more minutes did Joe spend on his homework than Mike?

   - A little more than 10
   - A little less than 10
   - A little more than 20
   - A little less than 20

### Numerical Estimation Strategies

1. Andy needed to add 587 and 834. Which of the following would be best for Andy to use to estimate the difference?

   - 800 + 500
   - 800 + 600
   - 900 + 500
   - 900 + 600

2. Marci needs to subtract 311 from 921. Which of the following would be best for Marci to use to estimate the difference?

   - 800 – 200
   - 900 – 300
   - 800 – 300
   - 900 – 200
4. Mike found 28 pinecones at the park on Saturday and 36 pinecones on Sunday. **ABOUT** how many pine cones did he find in all?

- A little less than 60
- A little more than 60
- A little less than 70
- A little more than 70

**Time**

1. David and Jenny went to swim lessons from 5:30 to 7:00 pm. How long did their lesson last?

- 1 hour
- 1 hour and 15 minutes
- 2 hours and 15 minutes
- 1 hour and 30 minutes

2. If today is Tuesday, what day will it be in three days?

- Wednesday
- Sunday
- Friday
- Monday

3. A movie began at 3:00. It ended at 5:15. How long did the movie last?

- 1 hour
- 1 hour 30 minutes
- 2 hours
- 2 hours 30 minutes

**Approximating Measures**

1. **About** how many shaded shapes does it take to cover the entire area?

- 2
- 4
- 6
- 8

2. **About** how many shaded squares fit in the entire rectangle?

- 2
- 4
- 6
- 8
Customary and Metric Measures
Use the ruler at the beginning of the packet to measure the following lines.

1. In the box below, draw a line that is 4 inches long.

2. In the box below, draw a line that is 6 cm long.

3. Use your ruler to measure the line segment below to the nearest centimeter.

- 7 cm
- 4 cm
- 2 cm
- 3 cm
4. Measure the following line to the nearest inch.

- 2 inches
- 3 inches
- 4 inches
- 5 inches

Geometric Shapes and Properties

1. The card below looks like which shape?

- Circle
- Square
- Rectangle
- Triangle

2. How many angles does this shape have?

- 2
- 3
- 4
- 5

3. Draw a rectangle inside the trapezoid.
4. How many sides does the following shape have?

○ 9
○ 8
○ 7
○ 6

Tables, Graphs and Charts
The chart below shows the number of children who ate hot lunch in school yesterday.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Number of Children</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade One</td>
<td>25</td>
</tr>
<tr>
<td>Grade Two</td>
<td>31</td>
</tr>
<tr>
<td>Grade Three</td>
<td>28</td>
</tr>
<tr>
<td>Grade Four</td>
<td>22</td>
</tr>
</tbody>
</table>

1. Which grade had **less** than 24 children?

○ Grade 1
○ Grade 2
○ Grade 3
○ Grade 4

The graph below shows how many runs four baseball players on the Eagles’ team batted in. Use the graph to answer the next 2 questions.

2. Who batted in the **most** runs?

○ Tim
○ Ann
○ Larry
○ Sue
3. How many more runs did Sue have than Larry?

- 1
- 2
- 3
- 4

4. Use the following information to make a bar graph.

<table>
<thead>
<tr>
<th>Favorite Type of Ice Cream</th>
<th>Number of People</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chocolate</td>
<td>7</td>
</tr>
<tr>
<td>Vanilla</td>
<td>4</td>
</tr>
<tr>
<td>Chocolate</td>
<td>6</td>
</tr>
</tbody>
</table>

**Favorite Type of Ice Cream**

**Number of People**

**Flavors**
Probability

1. Katie spun the spinner once. The arrow landed on 1. If Katie spins the spinner one more time, on which number is the arrow least likely to land?

- 1
- 2
- 3
- 4

2. Jack has a bag of coins. Inside the bag there is 4 quarters, 1 penny, 3 dimes, and 8 nickels. Which coin is Jack most likely to pick if he reaches inside the bag and takes out 1 coin?

- Quarter
- Nickel
- Penny
- Dime

3. Kyle spun the spinner once. The arrow landed on 1. If Kyle spins the spinner one more time, on which number is the arrow most likely to land?

- 1
- 2
- 3
- 4

Patterns

1. What figure comes next?

- 😊😊😊😊😊

2. Draw the next shape in the pattern.

- □ ▽ ▽ ▽ □ ▽ ▽ ▽

Explain why you drew the shape.

____________________________
____________________________
____________________________
____________________________
____________________________
____________________________
____________________________
____________________________
3. Fill in the next missing number in this pattern. Then tell why you chose that missing number.

13, 15, 17, 19, _____

________________________________

___________________________

________________________________

________________________________

________________________________

________________________________

4. What number is missing in the table?

<table>
<thead>
<tr>
<th></th>
<th>IN</th>
<th>OUT</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>10</td>
<td>5</td>
</tr>
<tr>
<td>9</td>
<td>8</td>
<td>3</td>
</tr>
<tr>
<td>11</td>
<td>15</td>
<td>10</td>
</tr>
<tr>
<td>13</td>
<td>12</td>
<td></td>
</tr>
</tbody>
</table>

Classification and Logical Reasoning

1. Mrs. Chart drew three hearts. How are the hearts **the same**?

○ Size  
○ Color  
○ Shape  
○ Shape and color
1. Susie, Tommy, Benji, and Georgi were collecting cans to raise money for “Toys for Tots.” The chart shows how many cans each child collected and what kind of cans they collected.

<table>
<thead>
<tr>
<th>Susie</th>
<th>Tommy</th>
<th>Benji</th>
<th>Georgi</th>
</tr>
</thead>
<tbody>
<tr>
<td>55 Pepsi® cans</td>
<td>60 Coca Cola® cans</td>
<td>45 Sprite® cans</td>
<td>35 Slice® cans</td>
</tr>
</tbody>
</table>

- The children must put the cans into 4 bags.
- Each bag can hold only 50 cans.

In the space below,
- show how many cans should be moved to someone else's bag so that all the cans end up in bags, and
- tell what kinds of cans were moved.
Scalene School is holding a car wash to raise money for a trip to Polygon Paradise. The Math Club members of Scalene School will be washing cars for 40 minutes today.

The table below shows which teams will be able to wash cars and the number of minutes long each team can work.

<table>
<thead>
<tr>
<th>Teams</th>
<th>Length in Minutes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Team A</td>
<td>10</td>
</tr>
<tr>
<td>Team B</td>
<td>15</td>
</tr>
<tr>
<td>Team C</td>
<td>5</td>
</tr>
<tr>
<td>Team D</td>
<td>10</td>
</tr>
<tr>
<td>Team E</td>
<td>25</td>
</tr>
<tr>
<td>Team F</td>
<td>20</td>
</tr>
<tr>
<td>Team G</td>
<td>5</td>
</tr>
<tr>
<td>Team H</td>
<td>10</td>
</tr>
</tbody>
</table>

Use the information in the table to complete the schedule shown below. The schedule must show which teams will be washing cars and the time each team will begin so that you have exactly 40 minutes of car washing beginning at 9:00 AM.

<table>
<thead>
<tr>
<th>Time that Team Begins</th>
<th>Name of Team</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:00</td>
<td></td>
</tr>
<tr>
<td>9:40</td>
<td>STOP</td>
</tr>
</tbody>
</table>