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- Aly Franklin

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HOW TO USE THIS RESOURCE

THE PACKET – PERFECT FOR GUIDED REVIEW!

• This resource is based off of the released questions for the 4th Grade Math MSTEP (both online and paper pencil). It is intended to give you more options for preparing your students without just repeating the same questions again and again.
• The pages are set up so you can mix and match them to create a packet that works best for your students. You could also select one page per week as a focus skill.
• Each page has two questions on the same topic, allowing you to solve the first question as a class and for your students to try the second question independently.

GOOGLE SLIDES – AN ONLINE, PAPER FREE OPTION!

• Use the linked google slides to assign your students additional online practice!
• The packet and online google slides have different versions of similar questions, making it a perfect review after you’ve completed the printable activities.
• To access the google slides. Click on the Middle School In the Mitten Logo to the right!

ANSWER KEYS

• Answer keys for both the packet and the google slides are included at the end of this resource!
THE PACKET

Tip: Mix and match this to make the perfect review for your students!
4TH GRADE MSTEP PREP

KAYLA TOOK 500 PICTURES OF HER DOG ON FRIDAY AND 600 PICTURES OF HER DOG ON SATURDAY. WHAT IS THE TOTAL NUMBER OF PICTURES SHE TOOK OF HER DOG ON THESE TWO DAYS?

JORGE WATCHED 300 HOURS OF TELEVISION IN THE MONTH OF JUNE AND 400 HOURS OF TELEVISION IN THE MONTH OF JULY. WHAT IS THE TOTAL NUMBER OF HOURS HE SPENT WATCHING TELEVISION IN THESE TWO MONTHS?
Select the statement that explains how the numbers 390 and 3900 are different.

A. 3900 is 1 time as large as 390  
B. 3900 is 10 times as large as 390  
C. 3900 is 100 times as large as 390  
D. 3900 is 1000 times as large as 390

Select the statement that explains how the numbers 8200 and 82 are different.

A. 8200 is 1 time as large as 82  
B. 8200 is 10 times as large as 82  
C. 8200 is 100 times as large as 82  
D. 8200 is 1000 times as large as 82
The figure has 6/8 shaded. What is another fraction that is equivalent to 6/8?

The figure has 3/12 shaded. What is another fraction that is equivalent to 3/12?
Mark the box that matches each figure with its description. Each figure may be matched to more than one description.

<table>
<thead>
<tr>
<th></th>
<th>Has at least one right angle</th>
<th>Has at least one pair of parallel sides</th>
<th>Has at least one pair of perpendicular sides</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Rectangle</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Parallelogram</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Rhombus</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Mark the box that matches each figure with its description. Each figure may be matched to more than one description.

<table>
<thead>
<tr>
<th></th>
<th>Has at least one right angle</th>
<th>Has at least one pair of parallel sides</th>
<th>Has at least one pair of perpendicular sides</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Parallelogram</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Rhombus</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Rectangle</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Shayla's Reading**

<table>
<thead>
<tr>
<th>Month</th>
<th>Books</th>
</tr>
</thead>
<tbody>
<tr>
<td>August</td>
<td>📚📚📚</td>
</tr>
<tr>
<td>September</td>
<td>📚📚📚📚</td>
</tr>
<tr>
<td>October</td>
<td>📚📚</td>
</tr>
</tbody>
</table>

**Key:** 📚 = 3 books

**Justin's Points**

<table>
<thead>
<tr>
<th>Month</th>
<th>Books</th>
</tr>
</thead>
<tbody>
<tr>
<td>Game #1</td>
<td>🏀🏀🏀🏀</td>
</tr>
<tr>
<td>Game #2</td>
<td>🏀🏀</td>
</tr>
<tr>
<td>Game #3</td>
<td>🏀🏀🏀</td>
</tr>
</tbody>
</table>

**Key:** 🏀 = 4 points

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WRITE THE LENGTH, IN MILLIMETERS, OF THE LINE.

---

WRITE THE LENGTH, IN MILLIMETERS, OF THE LINE.
A student claims that all fractions greater than \( \frac{2}{6} \) have a denominator less than 6.

Show that this student's claim is only sometimes true.

Write one number in each box to create a fraction greater than \( \frac{2}{6} \) with a denominator less than 6.

\[
\frac{\square}{\square}
\]

Write one number in each box to create a fraction greater than \( \frac{2}{6} \) with a denominator greater than 6.

\[
\frac{\square}{\square}
\]

A student claims that all fractions greater than \( \frac{4}{7} \) have a denominator less than 7.

Show that this student's claim is only sometimes true.

Write one number in each box to create a fraction greater than \( \frac{4}{7} \) with a denominator less than 7.

\[
\frac{\square}{\square}
\]

Write one number in each box to create a fraction greater than \( \frac{4}{7} \) with a denominator greater than 7.

\[
\frac{\square}{\square}
\]
Charlie has 46 pieces of candy. He gives the greatest number of pieces possible to each of his 7 friends, giving the same number to each person. He keeps the remaining pieces of candy. How many pieces does Charlie keep?

Shelby has 57 sticks of gum. She gives the greatest number of pieces possible to each of her 9 cousins, giving the same number to each person. She keeps the remaining sticks of gum. How many sticks does Shelby keep?
What is the sum?

5696
+ 442

What is the sum?

6582
+ 848
Halo is reading a book that has 214 pages. Alana is reading a book that has four times as many pages as Halo’s book.

How many pages does Alana’s book have? Circle all of the equations that represent this problem.

\[
\begin{align*}
214 \div 4 &= \square \\
4 \times \square &= 214 \\
214 \times 4 &= \square \\
\square \div 4 &= 214 \\
\square \div 214 &= 4 \\
214 \div \square &= 4
\end{align*}
\]

Jackie is writing a story that has 483 words. Jojo is writing a story that has three times as many words as Jackie’s story.

How many words does Jojo’s story have? Circle all of the equations that represent this problem.

\[
\begin{align*}
\square \div 3 &= 483 \\
\square \div 483 &= 3 \\
483 \div \square &= 3 \\
483 \div 3 &= \square \\
3 \times \square &= 483 \\
483 \times 3 &= \square
\end{align*}
\]
A figure has $\frac{3}{4}$ of its whole shaded gray.

Decide if each fraction is equal to $\frac{3}{4}$. Mark yes or no for each fraction.

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\frac{1}{2}$</td>
<td></td>
</tr>
<tr>
<td>$\frac{6}{8}$</td>
<td></td>
</tr>
<tr>
<td>$\frac{9}{12}$</td>
<td></td>
</tr>
</tbody>
</table>

A figure has $\frac{3}{5}$ of its whole shaded gray.

Decide if each fraction is equal to $\frac{3}{4}$. Mark yes or no for each fraction.

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\frac{6}{10}$</td>
<td></td>
</tr>
<tr>
<td>$\frac{1}{2}$</td>
<td></td>
</tr>
<tr>
<td>$\frac{4}{6}$</td>
<td></td>
</tr>
</tbody>
</table>
Lola is helping to set up tables in the school’s library. The librarian tells her three things:

- Each table in the library holds six people.
- Students visiting the library must fill a whole table before sitting at another table.
- There are 104 third grade students who will visit the library at one time for a presentation.

Lola wants to figure out how many seats will be empty at the last table after all 154 students are sitting at a table.

She tried to solve the problem like this:

**Step 1:**
- $6 \times 16 = 96$
- $6 \times 17 = 102$
- $6 \times 18 = 106$

**Step 2:**
- $104 - 102 = 2$

**Step 3:**
Which equation could be Lola’s Step 3 if she solved the problem correctly?

A. $6 - 2 = 4$

B. $2 + 17 = 19$

C. $2 \times 6 = 12$

Trevor is helping to set up tables in the school’s cafeteria. The principal tells him three things:

- Each circular table in the cafeteria holds 9 people.
- Students must fill a whole table before sitting at another table.
- There are 139 fourth grade students who will eat lunch at one time.

Trevor wants to figure out how many seats will be empty at the last table after all 132 students are sitting at a table.

He tried to solve the problem like this:

**Step 1:**
- $9 \times 14 = 126$
- $9 \times 15 = 135$
- $9 \times 16 = 144$

**Step 2:**
- $135 - 132 = 3$

**Step 3:**
Which equation could be Trevor’s Step 3 if he solved the problem correctly?

A. $3 + 9 = 12$

B. $3 + 15 = 18$

C. $9 - 3 = 6$
4th Grade MSTEP Prep

Use a protractor to measure the angle. Write the measure of the angle in degrees.

Use a protractor to measure the angle. Write the measure of the angle in degrees.
A bottle holds 3/4 liter of water. Marie needs 9 bottles of water to fill her fish tank. How many liters of water does Marie need to fill the tank?

A. 1 1/4 liters  
B. 3 4/9 liters  
C. 6 3/4 liters  
D. 9 3/4 liters

A bottle holds 5/6 liter of water. Jayla needs 8 bottles of water to fill a miniature pool for her dolls. How many liters of water does Jayla need to fill the pool?

A. 5 6/8 liters  
B. 6 4/6 liters  
C. 7 3/4 liters  
D. 8 5/6 liters
Jay solved the multiplication problem 32 x 47 using two different methods. He got two different answers, so he knows he made a mistake in one of the two methods.

**Method A**

\[
\begin{array}{c}
32 \\
\times 47 \\
\hline
224 \\
+1280 \\
\hline
1504
\end{array}
\]

**Method B**

\[
\begin{array}{c|c}
30 & 2 \\
\hline
1200 & 80 \\
\hline
280 & 14 \\
\hline
1504
\end{array}
\]

Look carefully at Jay's work. Which method was solved incorrectly, and where did he first make a mistake?

A. Method B because only two numbers should be added together, not four numbers
B. Method A because 47 should be on top and 32 should be on the bottom.
C. Method B because 7 x 30 is equal to 210, not 280
D. Method A because one hundred should have been carried and added to the product of 30 and 40.

Layla solved the multiplication problem 23 x 81 using two different methods. She got two different answers, so she knows she made a mistake in one of the two methods.

**Method Y**

\[
\begin{array}{c}
23 \\
\times 81 \\
\hline
23 \\
+1740 \\
\hline
1763
\end{array}
\]

**Method Z**

\[
\begin{array}{c|c}
20 & 3 \\
\hline
1600 & 240 \\
\hline
20 & 3 \\
\hline
1863
\end{array}
\]

Look carefully at Layla's work. Which method was solved incorrectly, and where did she first make a mistake?

A. Method Z because only two numbers should be added together, not four numbers
B. Method Z because 80 x 20 is not equal to 1600.
C. Method Y because they added incorrectly
D. Method Y because two hundreds should have been added to the product of 20 and 80.
The cost of buying a video game is 3 times the cost of renting the same game. It costs $18 to buy a game. What is the cost, in dollars, of renting a game?

The cost of ordering take out is 5 times the cost of cooking dinner at home. Ordering take out costs $35. How much would it cost to cook dinner at home?
## 4th Grade MStep Prep

Select True or False for each comparison.

<table>
<thead>
<tr>
<th></th>
<th>TRUE</th>
<th>FALSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>( \frac{5}{10} &gt; \frac{2}{3} )</td>
<td>True</td>
<td>False</td>
</tr>
<tr>
<td>( \frac{6}{8} &lt; \frac{8}{10} )</td>
<td>True</td>
<td>False</td>
</tr>
<tr>
<td>( \frac{9}{12} &lt; \frac{4}{5} )</td>
<td>True</td>
<td>False</td>
</tr>
</tbody>
</table>

Select True or False for each comparison.

<table>
<thead>
<tr>
<th></th>
<th>TRUE</th>
<th>FALSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>( \frac{5}{6} &gt; \frac{3}{4} )</td>
<td>True</td>
<td>False</td>
</tr>
<tr>
<td>( \frac{3}{8} &gt; \frac{4}{6} )</td>
<td>True</td>
<td>False</td>
</tr>
<tr>
<td>( \frac{7}{12} &lt; \frac{3}{5} )</td>
<td>True</td>
<td>False</td>
</tr>
</tbody>
</table>
A pattern is generated using this rule: start with the number 6 as the first term and add 9. Enter numbers into the boxes to complete the table.

<table>
<thead>
<tr>
<th>TERM</th>
<th>NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIRST</td>
<td>6</td>
</tr>
<tr>
<td>SECOND</td>
<td></td>
</tr>
<tr>
<td>THIRD</td>
<td></td>
</tr>
<tr>
<td>FOURTH</td>
<td></td>
</tr>
<tr>
<td>FIFTH</td>
<td></td>
</tr>
</tbody>
</table>

A pattern is generated using this rule: start with the number 4 as the first term and add 7. Enter numbers into the boxes to complete the table.

<table>
<thead>
<tr>
<th>TERM</th>
<th>NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIRST</td>
<td>4</td>
</tr>
<tr>
<td>SECOND</td>
<td></td>
</tr>
<tr>
<td>THIRD</td>
<td></td>
</tr>
<tr>
<td>FOURTH</td>
<td></td>
</tr>
<tr>
<td>FIFTH</td>
<td></td>
</tr>
</tbody>
</table>
Select all the numbers that make this inequality true.

\[ 3\frac{2}{3} > \boxed{\_} + 2 + \frac{2}{3} \]

A. \( \frac{4}{5} \)
B. \( \frac{6}{4} \)
C. \( \frac{3}{2} \)
D. \( \frac{3}{4} \)

Select all the numbers that make this inequality true.

\[ 2\frac{3}{5} < \boxed{\_} + 1 + \frac{3}{5} \]

A. \( \frac{5}{3} \)
B. \( \frac{3}{4} \)
C. \( \frac{4}{7} \)
D. \( \frac{9}{2} \)
### 4th Grade MSTEP Prep

Mark true or false for each equation.

<table>
<thead>
<tr>
<th>Fraction</th>
<th>True</th>
<th>False</th>
</tr>
</thead>
<tbody>
<tr>
<td>( \frac{23}{100} = 0.23 )</td>
<td>True</td>
<td>False</td>
</tr>
<tr>
<td>( \frac{5}{10} = 0.05 )</td>
<td>True</td>
<td>False</td>
</tr>
<tr>
<td>( \frac{6}{100} = 0.06 )</td>
<td>True</td>
<td>False</td>
</tr>
<tr>
<td>( \frac{4}{100} = 0.40 )</td>
<td>True</td>
<td>False</td>
</tr>
</tbody>
</table>

Mark true or false for each equation.

<table>
<thead>
<tr>
<th>Fraction</th>
<th>True</th>
<th>False</th>
</tr>
</thead>
<tbody>
<tr>
<td>( \frac{2}{100} = 0.20 )</td>
<td>True</td>
<td>False</td>
</tr>
<tr>
<td>( \frac{53}{100} = 0.53 )</td>
<td>True</td>
<td>False</td>
</tr>
<tr>
<td>( \frac{6}{10} = 0.60 )</td>
<td>True</td>
<td>False</td>
</tr>
<tr>
<td>( \frac{4}{10} = 0.04 )</td>
<td>True</td>
<td>False</td>
</tr>
</tbody>
</table>
James has 4 times as many cousins as his neighbor does. James has 12 cousins. How many cousins does his neighbor have?

Corbin has 3 times as many pets as his best friend, Kevin, does. Corbin has 6 pets. How many pets does his friend have?
## 4th Grade MSTEP Prep

### Decide whether each expression is equal to $4 \times \frac{3}{6}$

<table>
<thead>
<tr>
<th>Expression</th>
<th>Equal to $4 \times \frac{3}{6}$</th>
<th>Not equal to $4 \times \frac{3}{6}$</th>
</tr>
</thead>
<tbody>
<tr>
<td>$12 \times \frac{1}{6}$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$3 \times \frac{1}{12}$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$6 \times \frac{3}{4}$</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Decide whether each expression is equal to $3 \times \frac{5}{10}$

<table>
<thead>
<tr>
<th>Expression</th>
<th>Equal to $3 \times \frac{5}{10}$</th>
<th>Not equal to $3 \times \frac{5}{10}$</th>
</tr>
</thead>
<tbody>
<tr>
<td>$15 \times \frac{1}{10}$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$5 \times \frac{1}{3}$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$10 \times \frac{1}{15}$</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Write one number in each box to complete the subtraction problem shown.

8 6 4 □

□ 9 □ 7

□ 0 □ 5

Write one number in each box to complete the subtraction problem shown.

□ 3 □ 6

6 □ 2 7

□ 2 □ 2 □
Chelsea eats $\frac{7}{10}$ of a bag of pretzels. Nicole eats $\frac{6}{10}$ of a bag of pretzels.

Part A: Shade in the models to show how many bags of pretzels Chelsea and Nicole eat together.

Part B: Circle the total number of bags Chelsea and Nicole eat together.

\[
\begin{array}{cccc}
\frac{13}{20} & \frac{1}{10} & \frac{3}{20} & \frac{3}{10}
\end{array}
\]

Brian eats $\frac{5}{6}$ of a bag of takis. Ryan eats $\frac{3}{6}$ of a bag of takis.

Part A: Shade in the models to show how many bags of takis Brian and Ryan eat together.

Part B: Circle the total number of bags Brian and Ryan eat together.

\[
\begin{array}{cccc}
\frac{2}{6} & \frac{2}{12} & \frac{2}{6} & \frac{8}{12}
\end{array}
\]
Write one of the fractions listed in each box to create two true comparisons.

\[
\begin{array}{c}
\text{ } > \text{ } \\
\text{} < \\
\end{array}
\]

\[
\frac{2}{3} \quad \frac{8}{9} \quad \frac{4}{5} \quad \frac{1}{2} \quad \frac{9}{12} \quad \frac{5}{6}
\]

Write one of the fractions listed in each box to create two true comparisons.

\[
\begin{array}{c}
\text{ } > \text{ } \\
\text{} < \\
\end{array}
\]

\[
\frac{4}{6} \quad \frac{3}{5} \quad \frac{1}{3} \quad \frac{2}{4} \quad \frac{4}{9} \quad \frac{9}{10}
\]
ENTER THE UNKNOWN NUMBER THAT MAKES THE EQUATION TRUE.

56 \times 83 = 4,000 + 480 + \boxed{\quad} + 18

ENTER THE UNKNOWN NUMBER THAT MAKES THE EQUATION TRUE.

35 \times 72 = 2,100 + \boxed{\quad} + 60 + 10
SOME STUDENTS ARE PAINTING A MURAL FOR A SCHOOL WALL.

THE MURAL IS TAPE OFF INTO 15 EQUAL SECTIONS FOR THE STUDENTS TO PAINT.

JACKIE PAINTS 3 TIMES AS MUCH AS JOEY.

JASMINE PAINTS 2 TIMES AS MUCH AS SCOTT.

SCOTT PAINTS ONE SECTION LESS THAN JACKIE.

JOEY PAINTS \( \frac{1}{15} \) OF THE MURAL.

WHAT IS THE FRACTION OF THE MURAL THAT STILL NEEDS TO BE PAINTED?

SOME STUDENTS ARE PAINTING A POSTER FOR A PROJECT.

THE POSTER IS TAPE OFF INTO 12 EQUAL SECTIONS FOR THE STUDENTS TO PAINT.

LOIS PAINTS 2 TIMES AS MUCH AS CAELB.

BETSY PAINTS 3 TIMES AS MUCH AS RALPH.

CALEB PAINTS TWO SECTIONS LESS THAN BETSY.

RALPH PAINTS \( \frac{1}{12} \) OF THE MURAL.

WHAT IS THE FRACTION OF THE MURAL THAT STILL NEEDS TO BE PAINTED?
### 4th Grade MSTEP Prep

Compare the decimals using >, <, or =.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>4.56</td>
<td>4.65</td>
</tr>
<tr>
<td>0.62</td>
<td>0.54</td>
</tr>
</tbody>
</table>

Compare the decimals using >, <, or =.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>7.80</td>
<td>1.08</td>
</tr>
<tr>
<td>2.18</td>
<td>2.94</td>
</tr>
</tbody>
</table>
Donald is learning about shapes. He tells his friend that a rhombus cannot also be a rectangle. Is he correct? Why or why not? Draw a rhombus that is also a rectangle.

Hint: A rectangle must have two sets of parallel sides, and a rhombus must have two opposite acute angles and two opposite obtuse angles.

Kyla is learning about shapes. She tells her friend that a rhombus can also be a rectangle. Is she correct? Why or why not? Draw a rhombus that is also a rectangle.

Hint: A rectangle must have two sets of parallel sides, and a rhombus must have two opposite acute angles and two opposite obtuse angles.
### 3rd Grade MSTEP Prep

#### Household Objects

<table>
<thead>
<tr>
<th>Object</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sponge</td>
<td>3 1/3</td>
</tr>
<tr>
<td>Fork</td>
<td>4 2/3</td>
</tr>
<tr>
<td>Tissue Box</td>
<td>6</td>
</tr>
<tr>
<td>Spoon</td>
<td>4 1/3</td>
</tr>
</tbody>
</table>

#### Classroom Objects

<table>
<thead>
<tr>
<th>Object</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pencil</td>
<td>6 1/4</td>
</tr>
<tr>
<td>Scissors</td>
<td>1 1/4</td>
</tr>
<tr>
<td>Calculator</td>
<td>4 3/4</td>
</tr>
<tr>
<td>Sticky Note</td>
<td>3 1/4</td>
</tr>
</tbody>
</table>
Plot a point on the number line that represents the sum of \( \frac{2}{10} + \frac{3}{10} \).

Plot a point on the number line that represents the sum of \( \frac{1}{8} + \frac{3}{8} \).
ANSWER KEYS
### 4th Grade MSTEP Prep

**Kayla** took 500 pictures of her dog on Friday and 600 pictures of her dog on Saturday. What is the total number of pictures she took of her dog on these two days?

\[
500 + 600 = 1100 \text{ pictures}
\]

**Jorge** watched 300 hours of television in the month of June and 400 hours of television in the month of July. What is the total number of hours he spent watching television in these two months?

\[
300 + 400 = 700 \text{ hours}
\]
Select the statement that explains how the numbers 390 and 3900 are different.

A. 3900 is 1 time as large as 390
B. 3900 is 10 times as large as 390
C. 3900 is 100 times as large as 390
D. 3900 is 1000 times as large as 390

Select the statement that explains how the numbers 8200 and 82 are different.

A. 8200 is 1 time as large as 82
B. 8200 is 10 times as large as 82
C. 8200 is 100 times as large as 82
D. 8200 is 1000 times as large as 82
The figure has 6/8 shaded. What is another fraction that is equivalent to 6/8?

Answers will vary. These are the most common responses.

\[
\begin{array}{cccc}
\frac{3}{4} & \frac{9}{12} & \frac{12}{16} & \frac{15}{20} \\
\end{array}
\]

The figure has 3/12 shaded. What is another fraction that is equivalent to 3/12?

Answers will vary. These are the most common responses.

\[
\begin{array}{cccc}
\frac{1}{4} & \frac{2}{8} & \frac{4}{16} & \frac{5}{20} \\
\end{array}
\]
Mark the box that matches each figure with its description. Each figure may be matched to more than one description.

<table>
<thead>
<tr>
<th></th>
<th>Has at least one right angle</th>
<th>Has at least one pair of parallel sides</th>
<th>Has at least one pair of perpendicular sides</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Rectangle</strong></td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td><strong>Parallelogram</strong></td>
<td></td>
<td>✗</td>
<td></td>
</tr>
<tr>
<td><strong>Rhombus</strong></td>
<td></td>
<td>✗</td>
<td></td>
</tr>
</tbody>
</table>

Mark the box that matches each figure with its description. Each figure may be matched to more than one description.

<table>
<thead>
<tr>
<th></th>
<th>Has at least one right angle</th>
<th>Has at least one pair of parallel sides</th>
<th>Has at least one pair of perpendicular sides</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Parallelogram</strong></td>
<td></td>
<td>✗</td>
<td></td>
</tr>
<tr>
<td><strong>Rhombus</strong></td>
<td></td>
<td>✗</td>
<td></td>
</tr>
<tr>
<td><strong>Rectangle</strong></td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
</tbody>
</table>
Shayla read a lot of books over a few months. She created the picture graph below. Create another picture graph that shows these data with a different key. You may use whole books and half books in your graph.

**Shayla’s Reading**

<table>
<thead>
<tr>
<th>Month</th>
<th>Books</th>
</tr>
</thead>
<tbody>
<tr>
<td>August</td>
<td>BBB</td>
</tr>
<tr>
<td>September</td>
<td>BBBB</td>
</tr>
<tr>
<td>October</td>
<td>BB</td>
</tr>
</tbody>
</table>

**Key:** ☓ = 3 books

**Shayla’s Reading**

<table>
<thead>
<tr>
<th>Month</th>
<th>Books</th>
</tr>
</thead>
<tbody>
<tr>
<td>August</td>
<td>BBBBB</td>
</tr>
<tr>
<td>September</td>
<td>BBBBBB</td>
</tr>
<tr>
<td>October</td>
<td>BBB</td>
</tr>
</tbody>
</table>

**Key:** ☓ = 2 books

Answers will vary. These are examples.

Justin scored points for his basketball team. He created the picture graph below. Create another picture graph that shows these data with a different key. You may use whole basketballs and half basketballs in your graph.

**Justin’s Points**

<table>
<thead>
<tr>
<th>Month</th>
<th>Books</th>
</tr>
</thead>
<tbody>
<tr>
<td>Game #1</td>
<td>SSSSS</td>
</tr>
<tr>
<td>Game #2</td>
<td>SS</td>
</tr>
<tr>
<td>Game #3</td>
<td>SSS</td>
</tr>
</tbody>
</table>

**Key:** ☓ = 4 points

**Justin’s Points**

<table>
<thead>
<tr>
<th>Month</th>
<th>Books</th>
</tr>
</thead>
<tbody>
<tr>
<td>Game #1</td>
<td>SS</td>
</tr>
<tr>
<td>Game #2</td>
<td>S</td>
</tr>
<tr>
<td>Game #3</td>
<td>SS</td>
</tr>
</tbody>
</table>

**Key:** ☓ = 8 points

Answers will vary. These are examples.
WRITE THE LENGTH, IN MILLIMETERS, OF THE LINE.

8 cm x 10mm per cm = 80 mm

10 cm x 10mm per cm = 100 mm
A student claims that all fractions greater than $\frac{2}{6}$ have a denominator less than 6.

Show that this student’s claim is only sometimes true.

<table>
<thead>
<tr>
<th>Write one number in each box to create a fraction greater than $\frac{2}{6}$ with a denominator less than 6.</th>
<th>Write one number in each box to create a fraction greater than $\frac{2}{6}$ with a denominator greater than 6.</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\frac{4}{5}$</td>
<td>$\frac{2}{9}$</td>
</tr>
</tbody>
</table>

Answers will vary. These are examples.

A student claims that all fractions greater than $\frac{4}{7}$ have a denominator less than 7.

Show that this student’s claim is only sometimes true.

<table>
<thead>
<tr>
<th>Write one number in each box to create a fraction greater than $\frac{4}{7}$ with a denominator less than 7.</th>
<th>Write one number in each box to create a fraction greater than $\frac{4}{7}$ with a denominator greater than 7.</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\frac{3}{4}$</td>
<td>$\frac{8}{10}$</td>
</tr>
</tbody>
</table>

Answers will vary. These are examples.
Charlie has 46 pieces of candy. He gives the greatest number of pieces possible to each of his 7 friends, giving the same number to each person. He keeps the remaining pieces of candy. How many pieces does Charlie keep?

Charlie will keep 4 pieces of candy. (He gives out 42 pieces to his friends and each person gets 6 pieces)

Shelby has 57 sticks of gum. She gives the greatest number of pieces possible to each of her 9 cousins, giving the same number to each person. She keeps the remaining sticks of gum. How many sticks does Shelby keep?

Shelby will keep 3 pieces of gum. (She gives out 54 pieces to her cousins and each person gets 6 pieces)
What is the sum?

\[
\begin{align*}
5696 & \\
+ 442 & \\
\hline
6138 & 
\end{align*}
\]

What is the sum?

\[
\begin{align*}
6582 & \\
+ 848 & \\
\hline
7430 & 
\end{align*}
\]
HALO IS READING A BOOK THAT HAS 214 PAGES. ALANA IS READING A BOOK THAT HAS FOUR TIMES AS MANY PAGES AS HALO’S BOOK.

HOW MANY PAGES DOES ALANA’S BOOK HAVE? CIRCLE ALL OF THE EQUATIONS THAT REPRESENT THIS PROBLEM.

- \[214 \div 4 = \square\]
- \[4 \times \square = 214\]
- \[214 \times 4 = \square\]
- \[\square \div 4 = 214\]
- \[\square \div 214 = 4\]
- \[214 \div \square = 4\]

JACKIE IS WRITING A STORY THAT HAS 483 WORDS. JOJO IS WRITING A STORY THAT HAS THREE TIMES AS MANY WORDS AS JACKIE’S STORY.

HOW MANY WORDS DOES JOJO’S STORY HAVE? CIRCLE ALL OF THE EQUATIONS THAT REPRESENT THIS PROBLEM.

- \[\square \div 3 = 483\]
- \[\square \div 483 = 3\]
- \[483 \div \square = 3\]
- \[483 \div 3 = \square\]
- \[3 \times \square = 483\]
- \[483 \times 3 = \square\]
4th Grade MStep Prep

A figure has \( \frac{3}{4} \) of its whole shaded gray.

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>( \frac{1}{2} )</td>
<td>x</td>
</tr>
<tr>
<td>( \frac{6}{8} )</td>
<td>x</td>
</tr>
<tr>
<td>( \frac{9}{12} )</td>
<td>x</td>
</tr>
</tbody>
</table>

Decide if each fraction is equal to \( \frac{3}{4} \). Mark yes or no for each fraction.

A figure has \( \frac{3}{5} \) of its whole shaded gray.

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>( \frac{6}{10} )</td>
<td>x</td>
</tr>
<tr>
<td>( \frac{1}{2} )</td>
<td>x</td>
</tr>
<tr>
<td>( \frac{4}{6} )</td>
<td>x</td>
</tr>
</tbody>
</table>

Decide if each fraction is equal to \( \frac{3}{4} \). Mark yes or no for each fraction.
4th Grade MSTEP Prep

Lola is helping to set up tables in the school’s library. The librarian tells her three things:

- Each table in the library holds six people.
- Students visiting the library must fill a whole table before sitting at another table.
- There are 104 third grade students who will visit the library at one time for a presentation.

Lola wants to figure out how many seats will be empty at the last table after all 154 students are sitting at a table.

She tried to solve the problem like this:

**Step 1:**
- $6 \times 16 = 96$
- $6 \times 17 = 102$
- $6 \times 18 = 106$

**Step 2:**
- $104 - 102 = 2$

**Step 3:**
Which equation could be Lola’s step 3 if she solved the problem correctly?

A. $6 - 2 = 4$

B. $2 + 17 = 19$

C. $2 \times 6 = 12$

Trevor is helping to set up tables in the school’s cafeteria. The principal tells him three things:

- Each circular table in the cafeteria holds 9 people.
- Students must fill a whole table before sitting at another table.
- There are 139 fourth grade students who will eat lunch at one time.

Trevor wants to figure out how many seats will be empty at the last table after all 132 students are sitting at a table.

He tried to solve the problem like this:

**Step 1:**
- $9 \times 14 = 126$
- $9 \times 15 = 135$
- $9 \times 16 = 144$

**Step 2:**
- $135 - 132 = 3$

**Step 3:**
Which equation could be Trevor’s step 3 if he solved the problem correctly?

A. $3 + 9 = 12$

B. $3 + 15 = 18$

C. $9 - 3 = 6$

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Use a protractor to measure the angle. Write the measure of the angle in degrees.

20°

Use a protractor to measure the angle. Write the measure of the angle in degrees.

80°
A bottle holds 3/4 liter of water. Marie needs 9 bottles of water to fill her fish tank. How many liters of water does Marie need to fill the tank?

A. 1 & 1/4 liters  
B. 3 & 4/9 liters  
C. 6 & 3/4 liters  
D. 9 & 3/4 liters

A bottle holds 5/6 liter of water. Jayla needs 8 bottles of water to fill a miniature pool for her dolls. How many liters of water does Jayla need to fill the pool?

A. 5 & 6/8 liters  
B. 6 & 4/6 liters  
C. 7 & 3/4 liters  
D. 8 & 5/6 liters
Jay solved the multiplication problem $32 \times 47$ using two different methods. He got two different answers, so he knows he made a mistake in one of the two methods.

**Method A**

\[
\begin{array}{c}
32 \\
\times 47 \\
\hline
224 \\
1280 \\
\hline
1504
\end{array}
\]

**Method B**

\[
\begin{array}{c|c}
30 & 2 \\
\hline
1200 & 80 \\
280 & 14 \\
\hline
1504 & 14
\end{array}
\]

Look carefully at Jay’s work. Which method was solved incorrectly, and where did he first make a mistake?

A. Method B because only two numbers should be added together, not four numbers.

B. Method A because 47 should be on top and 32 should be on the bottom.

C. Method B because $7 \times 30$ is equal to 210, not 280.

D. Method A one hundred should have been carried and added to the product of 30 and 40.

Layla solved the multiplication problem $23 \times 81$ using two different methods. She got two different answers, so she knows she made a mistake in one of the two methods.

**Method Y**

\[
\begin{array}{c}
23 \\
\times 81 \\
\hline
23 \\
1740 \\
\hline
1763
\end{array}
\]

**Method Z**

\[
\begin{array}{c|c}
20 & 3 \\
\hline
1600 & 240 \\
20 & 3 \\
\hline
1863 & 3
\end{array}
\]

Look carefully at Layla’s work. Which method was solved incorrectly, and where did she first make a mistake?

A. Method Z because only two numbers should be added together, not four numbers.

B. Method Z because $80 \times 20$ is not equal to 1600.

C. Method Y because they added incorrectly.

D. Method Y because two hundreds should have been added to the product of 20 and 80.
4TH GRADE MSTEP PREP

The cost of buying a video game is 3 times the cost of renting the same game. It costs $18 to buy a game. What is the cost, in dollars, of renting a game?

$6 to rent a game

The cost of ordering take out is 5 times the cost of cooking dinner at home. Ordering take out costs $35. How much would it cost to cook dinner at home?

$7 to cook at home
### 4th Grade MSTEP Prep

**Select True or False for Each Comparison.**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th><strong>True</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>( \frac{5}{10} ) &amp; ( &gt; ) &amp; ( \frac{2}{3} )</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>( \frac{6}{8} ) &amp; ( &lt; ) &amp; ( \frac{8}{10} )</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>( \frac{9}{12} ) &amp; ( &lt; ) &amp; ( \frac{4}{5} )</td>
<td></td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

**Select True or False for Each Comparison.**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th><strong>True</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>( \frac{5}{6} ) &amp; ( &gt; ) &amp; ( \frac{3}{4} )</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>( \frac{3}{8} ) &amp; ( &gt; ) &amp; ( \frac{4}{6} )</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>( \frac{7}{12} ) &amp; ( &lt; ) &amp; ( \frac{3}{5} )</td>
<td></td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>
A pattern is generated using this rule: Start with the number 6 as the first term and add 9. Enter numbers into the boxes to complete the table.

<table>
<thead>
<tr>
<th>TERM</th>
<th>NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIRST</td>
<td>6</td>
</tr>
<tr>
<td>SECOND</td>
<td>15</td>
</tr>
<tr>
<td>THIRD</td>
<td>24</td>
</tr>
<tr>
<td>FOURTH</td>
<td>33</td>
</tr>
<tr>
<td>FIFTH</td>
<td>42</td>
</tr>
</tbody>
</table>

A pattern is generated using this rule: Start with the number 4 as the first term and add 7. Enter numbers into the boxes to complete the table.

<table>
<thead>
<tr>
<th>TERM</th>
<th>NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIRST</td>
<td>4</td>
</tr>
<tr>
<td>SECOND</td>
<td>11</td>
</tr>
<tr>
<td>THIRD</td>
<td>18</td>
</tr>
<tr>
<td>FOURTH</td>
<td>25</td>
</tr>
<tr>
<td>FIFTH</td>
<td>32</td>
</tr>
</tbody>
</table>
### 4th Grade MSTEP Prep

**Select all the numbers that make this inequality true.**

\[ 3 \frac{2}{3} > \square + 2 + \frac{2}{3} \]

- A. \( \frac{4}{5} \)
- B. \( \frac{6}{4} \)
- C. \( \frac{3}{2} \)
- D. \( \frac{3}{4} \)

**MUST BE A NUMBER LESS THAN ONE**

**Select all the numbers that make this inequality true.**

\[ 2 \frac{3}{5} < \square + 1 + \frac{3}{5} \]

- A. \( \frac{5}{3} \)
- B. \( \frac{3}{4} \)
- C. \( \frac{4}{7} \)
- D. \( \frac{9}{2} \)

**MUST BE A NUMBER GREATER THAN ONE**
### 4th Grade MSTEP Prep

**Mark True or False for Each Equation.**

<table>
<thead>
<tr>
<th>Fraction</th>
<th>Decimal</th>
<th>True</th>
<th>False</th>
</tr>
</thead>
<tbody>
<tr>
<td>( \frac{23}{100} )</td>
<td>0.23</td>
<td>×</td>
<td>✓</td>
</tr>
<tr>
<td>( \frac{5}{10} )</td>
<td>0.05</td>
<td>×</td>
<td>✓</td>
</tr>
<tr>
<td>( \frac{6}{100} )</td>
<td>0.06</td>
<td>×</td>
<td>✓</td>
</tr>
<tr>
<td>( \frac{4}{100} )</td>
<td>0.40</td>
<td>×</td>
<td>✓</td>
</tr>
</tbody>
</table>

**Mark True or False for Each Equation.**

<table>
<thead>
<tr>
<th>Fraction</th>
<th>Decimal</th>
<th>True</th>
<th>False</th>
</tr>
</thead>
<tbody>
<tr>
<td>( \frac{2}{100} )</td>
<td>0.20</td>
<td>×</td>
<td>✓</td>
</tr>
<tr>
<td>( \frac{53}{100} )</td>
<td>0.53</td>
<td>×</td>
<td>✓</td>
</tr>
<tr>
<td>( \frac{6}{10} )</td>
<td>0.60</td>
<td>×</td>
<td>✓</td>
</tr>
<tr>
<td>( \frac{4}{10} )</td>
<td>0.04</td>
<td>×</td>
<td>✓</td>
</tr>
</tbody>
</table>
James has 4 times as many cousins as his neighbor does. James has 12 cousins. How many cousins does his neighbor have?

3 Cousins

Corbin has 3 times as many pets as his best friend, Kevin, does. Corbin has 6 pets. How many pets does his friend have?

2 Pets
### 4th Grade MSTEP Prep

**Decide whether each expression is equal to \(4 \times \frac{3}{6}\)**

<table>
<thead>
<tr>
<th>Expression</th>
<th>Equal to (4 \times \frac{3}{6})</th>
<th>Not equal to (4 \times \frac{3}{6})</th>
</tr>
</thead>
<tbody>
<tr>
<td>(12 \times \frac{1}{6})</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>(3 \times \frac{1}{12})</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>(6 \times \frac{3}{4})</td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

**Decide whether each expression is equal to \(3 \times \frac{5}{10}\)**

<table>
<thead>
<tr>
<th>Expression</th>
<th>Equal to (3 \times \frac{5}{10})</th>
<th>Not equal to (3 \times \frac{5}{10})</th>
</tr>
</thead>
<tbody>
<tr>
<td>(15 \times \frac{1}{10})</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>(5 \times \frac{1}{3})</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>(10 \times \frac{1}{15})</td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>
WRITE ONE NUMBER IN EACH BOX TO COMPLETE THE SUBTRACTION PROBLEM SHOWN.

\[
8 6 4 2 \\
- 5 9 3 7 \\
2 7 0 5
\]

WRITE ONE NUMBER IN EACH BOX TO COMPLETE THE SUBTRACTION PROBLEM SHOWN.

\[
9 3 5 6 \\
- 6 9 2 7 \\
2 4 2 9
\]
Chelsea eats $\frac{7}{10}$ of a bag of pretzels. Nicole eats $\frac{6}{10}$ of a bag of pretzels.

Part A: Shade in the models to show how many bags of pretzels Chelsea and Nicole eat together.

Part B: Circle the total number of bags Chelsea and Nicole eat together.

Brian eats $\frac{5}{6}$ of a bag of Takis. Ryan eats $\frac{3}{6}$ of a bag of Takis.

Part A: Shade in the models to show how many bags of Takis Brian and Ryan eat together.

Part B: Circle the total number of bags Brian and Ryan eat together.
Write one of the fractions listed in each box to create two true comparisons.

Answers will vary, but are correct if they create true comparisons.

\[
\begin{align*}
\frac{2}{3} &> \frac{8}{9} \\
\frac{4}{5} &< \frac{1}{2}
\end{align*}
\]

\[
\begin{align*}
\frac{9}{12} &> \frac{5}{6}
\end{align*}
\]

Write one of the fractions listed in each box to create two true comparisons.

Answers will vary, but are correct if they create true comparisons.

\[
\begin{align*}
\frac{4}{6} &> \frac{3}{5} \\
\frac{1}{3} &< \frac{2}{4}
\end{align*}
\]

\[
\begin{align*}
\frac{4}{9} &< \frac{9}{10}
\end{align*}
\]
4th Grade MSTEP Prep

Enter the unknown number that makes the equation true.

\[56 \times 83 = 4,000 + 480 + \boxed{150} + 18\]

Enter the unknown number that makes the equation true.

\[35 \times 72 = 2,100 + \boxed{350} + 60 + 10\]
Some students are painting a mural for a school wall.

The mural is taped off into 15 equal sections for the students to paint.

Jackie paints 3 times as much as Joey.
Jasmine paints 2 times as much as Scott.
Scott paints one section less than Jackie.
Joey paints \( \frac{1}{15} \) of the mural.

What is the fraction of the mural that still needs to be painted?

\( \frac{10}{15} \) has been painted
\( \frac{5}{15} \) still needs to be painted

Some students are painting a poster for a project.

The poster is taped off into 12 equal sections for the students to paint.

Lois paints 2 times as much as Caleb.
Betsy paints 3 times as much as Ralph.
Caleb paints two sections less than Betsy.
Ralph paints \( \frac{1}{12} \) of the mural.

What is the fraction of the mural that still needs to be painted?

\( \frac{1}{12} \) has been painted
\( \frac{5}{12} \) still needs to be painted
Compare the decimals using >, <, or =.

4.56 < 4.65

0.62 > 0.54

Compare the decimals using >, <, or =.

1.80 > 1.08

2.78 < 2.94
Donald is learning about shapes. He tells his friend that a rhombus cannot also be a rectangle. Is he correct? Why or why not? Draw a rhombus that is also a rectangle.

Hint: A rectangle must have two sets of parallel sides, and a rhombus must have two opposite acute angles and two opposite obtuse angles.

No, he is not correct. Answers will vary, but are correct as long as they have two sets of parallel lines, two opposite acute angles, and two opposite obtuse angles.

Kyla is learning about shapes. She tells her friend that a rhombus can also be a rectangle. Is she correct? Why or why not? Draw a rhombus that is also a rectangle.

Hint: A rectangle must have two sets of parallel sides, and a rhombus must have two opposite acute angles and two opposite obtuse angles.

Yes, she is correct. Answers will vary, but are correct as long as they have two sets of parallel lines, two opposite acute angles, and two opposite obtuse angles.
### 3rd Grade MSTEP Prep

**Students measured the following household objects. Mark their lengths on the line plot.**

<table>
<thead>
<tr>
<th>OBJECT</th>
<th>LENGTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sponge</td>
<td>3 1/3</td>
</tr>
<tr>
<td>Fork</td>
<td>4 2/3</td>
</tr>
<tr>
<td>Tissue Box</td>
<td>6</td>
</tr>
<tr>
<td>Spoon</td>
<td>4 1/2</td>
</tr>
</tbody>
</table>

**Students measured the following classroom objects. Mark their lengths on the line plot.**

<table>
<thead>
<tr>
<th>OBJECT</th>
<th>LENGTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pencil</td>
<td>6 1/4</td>
</tr>
<tr>
<td>Scissors</td>
<td>4 1/4</td>
</tr>
<tr>
<td>Calculator</td>
<td>4 3/4</td>
</tr>
<tr>
<td>Sticky Note</td>
<td>3 1/4</td>
</tr>
</tbody>
</table>
Plot a point on the number line that represents the sum of \( \frac{2}{10} + \frac{3}{10} \).

\[ \frac{5}{10} = \frac{1}{2} \]

Plot a point on the number line that represents the sum of \( \frac{1}{8} + \frac{3}{8} \).

\[ \frac{4}{8} = \frac{1}{2} \]
4TH GRADE MSTEP PREP

WHILE ON A ROAD TRIP, PATRICK DROVE 600 MILES IN THE FIRST WEEK HE WAS ON THE ROAD. HE DROVE 800 MILES IN THE SECOND WEEK. WHAT IS THE TOTAL NUMBER OF MILES PATRICK DROVE IN BOTH WEEKS?

600 + 800 = 1400 MILES

MY ANSWER:

4TH GRADE MSTEP PREP

SELECT THE STATEMENT THAT EXPLAINS HOW THE NUMBERS 45 AND 4500 ARE DIFFERENT.

A. 4500 IS 1 TIME AS LARGE AS 45
B. 4500 IS 10 TIMES AS LARGE AS 45
C. 4500 IS 100 TIMES AS LARGE AS 45
D. 4500 IS 1000 TIMES AS LARGE AS 45

MY ANSWER:
**Google Slides Answer Key**

**4th Grade MSTEP Prep**

The figure has \(\frac{2}{8}\) shaded. What is another fraction that is equivalent to \(\frac{2}{8}\)?

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

My Answer: \(\frac{1}{4} \quad \frac{3}{12} \quad \frac{4}{16}\) Answers may vary

**4th Grade MSTEP Prep**

Mark the box that matches each figure with its description. Each figure may be matched to more than one description.

<table>
<thead>
<tr>
<th>Rhombus</th>
<th>Has at least one right angle</th>
<th>Has at least one pair of parallel sides</th>
<th>Has at least one pair of perpendicular sides</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(\times)</td>
<td>(\times)</td>
<td>(\times)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Parallelogram</th>
<th>Has at least one right angle</th>
<th>Has at least one pair of parallel sides</th>
<th>Has at least one pair of perpendicular sides</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(\times)</td>
<td>(\times)</td>
<td>(\times)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Rectangle</th>
<th>Has at least one right angle</th>
<th>Has at least one pair of parallel sides</th>
<th>Has at least one pair of perpendicular sides</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(\times)</td>
<td>(\times)</td>
<td>(\times)</td>
</tr>
</tbody>
</table>
Kaitlyn biked a lot this summer. She created the picture graph below. Create another picture graph that shows these data with a different key. You may use whole rectangles and half rectangles in your graph.

<table>
<thead>
<tr>
<th>Month</th>
<th>Books</th>
</tr>
</thead>
<tbody>
<tr>
<td>June</td>
<td>□□□□</td>
</tr>
<tr>
<td>July</td>
<td>□□</td>
</tr>
<tr>
<td>August</td>
<td>□□□□</td>
</tr>
</tbody>
</table>

**Key:** □ = 2 miles

**Answers may vary**

Write the length, in millimeters, of the line.

My answer: 70 mm
4TH GRADE MSTEP PREP

A student claims that all fractions greater than 2/1 have a denominator less than 7.

Show that this student's claim is only sometimes true.

Write one number in each box to create a fraction greater than 4/7 with a denominator less than 7.

\[
\frac{5}{6} \\
\frac{8}{9}
\]

Answers may vary

Write one number in each box to create a fraction greater than 4/7 with a denominator greater than 7.

\[
\frac{5}{6} \\
\frac{8}{9}
\]

Answers may vary

4TH GRADE MSTEP PREP

Dylan has 29 stickers. He gives the greatest number of pieces possible to each of his 5 siblings, giving the same number to each person. He keeps the remaining stickers. How many stickers does Dylan keep?

My answer: 4 stickers
Google Slides Answer Key

4th Grade MSTEP Prep

What is the sum?

2839

+ 684

My Answer: 3523

4th Grade MSTEP Prep

Logan is biking on a trail that is 671 feet long. Maya is biking on a trail that is five times as long as Logan’s trail.

How many feet long is Maya’s trail? Record all of the equations that represent this problem.

A. □ ÷ 5 = 671
B. □ ÷ 671 = 5
C. 671 ÷ □ = 5
D. 671 ÷ 5 = □
E. 5 × □ = 671
F. 671 × 5 = □

My Answer: A, B, F
A figure has ¼ of its whole shaded gray.

Decide if each fraction is equal to ¼. Mark yes or no for each fraction.

<table>
<thead>
<tr>
<th></th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>2/8</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>4/16</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>3/12</td>
<td>x</td>
<td></td>
</tr>
</tbody>
</table>

Mark is helping to stock shelves at his dad's shoe store. His dad tells him three things:

- Each shelf can hold 8 boxes of shoes.
- Each shelf must be full before putting shoe boxes on a new shelf.
- There are 141 boxes of shoes that need to be put on shelves.

Mark wants to figure out how many spaces will be empty on the last shelf after all 143 boxes of shoes are put on a shelf.

He tried to solve the problem like this:

Step 1: 8 x 16 = 128
8 x 17 = 136
8 x 18 = 144

Which equation could be Mark's step 3 if he solved the problem correctly?

A. 17 - 2 = 15    B. 8 - 3 = 5    C. 3 x 8 = 24

My answer: B
Google Slides Answer Key

4th Grade MSTEP Prep

Use a protractor to measure the angle. Write the measure of the angle in degrees.

My Answer: 50°

4th Grade MSTEP Prep

A bottle holds 2/5 liter of water. Jamie needs 6 bottles of water to fill her dog's water bowl. How many liters of water does Jamie need to fill the water bowl?

A. 6 2/5 liters  
B. 2 2/5 liters  
C. 12 1/5 liters  
D. 2 5/6 liters

My Answer: B
GOOGLE SLIDES ANSWER KEY

4TH GRADE MSTEP PREP

JACOB SOLVED THE MULTIPLICATION PROBLEM 47 X 18 USING TWO DIFFERENT METHODS.

HE GOT TWO DIFFERENT ANSWERS, SO HE KNOWS HE MADE A MISTAKE IN ONE OF THE TWO METHODS.

METHOD A

\[
\begin{array}{c}
47 \\
\times 16 \\
282 \\
+ 470 \\
652
\end{array}
\]

METHOD B

\[
\begin{array}{cc}
40 & 1 \\
0 & 10 \\
240 & 42 \\
+ 42 \\
\hline
752
\end{array}
\]

WHICH METHOD WAS SOLVED INCORRECTLY, AND WHERE DID HE FIRST MAKE A MISTAKE?

A. METHOD A BECAUSE 18 SHOULD BE ON TOP AND 47 SHOULD BE ON THE BOTTOM.

B. METHOD A BECAUSE A HUNDRED SHOULD HAVE BEEN CARRIED AND ADDED TO THE SUM OF 200 AND 400.

C. METHOD B BECAUSE THEY ADDED INCORRECTLY.

MY ANSWER: B

4TH GRADE MSTEP PREP

THE COST OF A SEASON PASS AT A SNOWBOARDING CLUB IS NINE TIMES AS MUCH AS THE COST OF A SINGLE DAY PASS. THE SEASON PASS COSTS $72. WHAT IS THE COST OF A SINGLE DAY PASS?

MY ANSWER: $8
SELECT TRUE OR FALSE FOR EACH COMPARISON.

<table>
<thead>
<tr>
<th></th>
<th>TRUE</th>
<th>FALSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>(\frac{5}{9}) &gt; (\frac{3}{7})</td>
<td></td>
<td>(\times)</td>
</tr>
<tr>
<td>(\frac{7}{8}) &gt; (\frac{5}{6})</td>
<td>(\times)</td>
<td></td>
</tr>
<tr>
<td>(\frac{7}{10}) &lt; (\frac{8}{9})</td>
<td>(\times)</td>
<td></td>
</tr>
</tbody>
</table>

A PATTERN IS GENERATED USING THIS RULE: START WITH THE NUMBER 8 AS THE FIRST TERM AND ADD 3. ENTER NUMBERS INTO THE BOXES TO COMPLETE THE TABLE.

<table>
<thead>
<tr>
<th>TERM</th>
<th>NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIRST</td>
<td>8</td>
</tr>
<tr>
<td>SECOND</td>
<td>11</td>
</tr>
<tr>
<td>THIRD</td>
<td>14</td>
</tr>
<tr>
<td>FOURTH</td>
<td>17</td>
</tr>
<tr>
<td>FIFTH</td>
<td>20</td>
</tr>
</tbody>
</table>
### 4TH GRADE MSTEP PREP

**Select True or False for Each Comparison.**

<table>
<thead>
<tr>
<th></th>
<th>True</th>
<th>False</th>
</tr>
</thead>
<tbody>
<tr>
<td>7 Hundred + 2 Tens &gt; 70 + 200</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>857 &lt; 80 + 500 + 7</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>90 Tens + 20 Ones = 290</td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

### 4TH GRADE MSTEP PREP

Select all the numbers that make this inequality true.

$$2 \frac{2}{3} < \square + \frac{2}{3} + 1$$

A. \( \frac{7}{8} \)
B. \( \frac{3}{4} \)
C. \( \frac{4}{3} \)
D. \( \frac{8}{5} \)

**My Answer:** C and D
# Google Slides Answer Key

## 4th Grade MSTEP Prep

Mark True or False for each equation.

<table>
<thead>
<tr>
<th></th>
<th>True</th>
<th>False</th>
</tr>
</thead>
<tbody>
<tr>
<td>( \frac{8}{10} = 0.08 )</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>( \frac{41}{100} = 0.41 )</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>( \frac{9}{100} = 0.09 )</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>( \frac{7}{100} = 0.70 )</td>
<td></td>
<td>x</td>
</tr>
</tbody>
</table>

### 4th Grade MSTEP Prep

Michael has 8 times as many Pokémon cards as his brother does. Michael has 56 Pokémon cards. How many cards does his brother have?

**My Answer:** 7 cards
### Google Slides Answer Key

#### 4th Grade MStep Prep

Decide whether each expression is equal to $4 \times \frac{2}{3}$

<table>
<thead>
<tr>
<th>Expression</th>
<th>Equal to $4 \times \frac{2}{3}$</th>
<th>Not Equal to $4 \times \frac{2}{3}$</th>
</tr>
</thead>
<tbody>
<tr>
<td>$12 \times \frac{1}{2}$</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>$2 \times \frac{4}{3}$</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>$8 \times \frac{1}{3}$</td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

#### 4th Grade MStep Prep

Write one number in each box to complete the subtraction problem shown.

$$
\begin{array}{c}
7 \boxed{8} \boxed{1} \boxed{5} \\
- \boxed{3} \boxed{9} \boxed{5} \boxed{2}
\end{array}
$$

$$
\boxed{3} \boxed{8} \boxed{6} \boxed{3}
$$
**4th Grade Mstep Prep**

Lauren eats $\frac{5}{8}$ of a bag of chips. Ally eats $\frac{7}{8}$ of a bag of chips.

**Part A:** Put an X in the models to show how many bags of chips Lauren and Ally eat together.

Part B: Circle the total number of bags Lauren and Ally eat together.

\[
\begin{array}{cccc}
\frac{2}{8} & \frac{4}{8} & \frac{12}{16} & \frac{4}{16}
\end{array}
\]

**4th Grade Mstep Prep**

<table>
<thead>
<tr>
<th>Object</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sponge</td>
<td>$4\frac{1}{2}$</td>
</tr>
<tr>
<td>Fork</td>
<td>$6\frac{1}{2}$</td>
</tr>
<tr>
<td>Tissue Box</td>
<td>1</td>
</tr>
<tr>
<td>Spoon</td>
<td>$3\frac{1}{2}$</td>
</tr>
</tbody>
</table>

Students measured the following household objects. Mark their lengths on the line plot by dragging an X to each spot.
Google Slides Answer Key

4th Grade MSTEP Prep

Write one of the fractions listed in each set of boxes to create two true comparisons.

\[
\frac{3}{5} > \frac{1}{2}
\]

\[
\frac{5}{8} < \frac{9}{10}
\]

\[
\frac{7}{12}, \frac{3}{5}, \frac{5}{8}, \frac{3}{4}, \frac{1}{2}, \frac{9}{10}
\]

4th Grade MSTEP Prep

Enter the unknown number that makes the equation true.

\[65 \times 49 = 2,400 + \boxed{540} + 200 + 45\]
GOOGLE SLIDES ANSWER KEY

4TH GRADE MSTEP PREP

Some students are painting a backdrop for a play.

The backdrop is taped off into 10 equal sections for the students to paint.
Kim paints 2 times as much as Daniel.
Rebekah paints 4 times as much as Giavani.
Daniel paints 3 sections less than Rebekah.
Giavani paints $\frac{1}{10}$ of the mural.

What is the fraction of the mural that still needs to be painted?

My answer: $\frac{2}{10}$ needs to be painted

4TH GRADE MSTEP PREP

Compare the decimals using $>$, $<$, or $=$.

3.45 $\leq$ 3.78

0.62 $\geq$ 0.39
Cramer is learning about shapes. He tells his friend that a rhombus cannot also be a rectangle. Is he correct? Why or why not?

My answer: No, he is not correct. A rhombus must have four equal sides, while a rectangle must have two sets of parallel sides. They can both apply to the same shape.

4th Grade MSTEP Prep

Which point on the number line represents the sum?

\[ \frac{1}{6} + \frac{2}{6} \]

A B C D E

0 1 2 3 4

My answer: B