STAAR Adventures
at
Ripley's
Believe It or Not!

Mission #1
Mission #2
Mission #3
Mission #4
Mission #5
Mission #6
Welcome to STAAR Ripley’s Believe It or Not.

Introduce STAAR Ripley’s Believe It or Not. Have students write their “Planning Tips” in the chart provided on the first page of the student handout. To help with the discussion, ask questions such as: How many of you enjoy going on a field trip? Do you have to prepare before you go? What do you take with you? Do you have to get organized? Did you have to plan ahead? etc. Then as a class, brainstorm ways to get ready to take the STAAR Test. Ask questions such as: What can you do as a student to get ready for the STAAR Test? Will you need to use your previous knowledge? Will you need tools? What strategies might you use to work problems? Have students write these suggestions in the “Preparing for STAAR” section of the chart.

Each day discuss the TEK that will be addressed.

The Warm Up section of the lessons includes two problems. Allow students to work the problem as a class. Students should enter their answer in the “warm up” section of the student sheet, then discuss the answers.

The correct answers are 785,431 and 700,000 + 80,000 + 5,000 + 400 + 30 + 1.
Slide 5

**Mission #1**

**WARM UP**

2. An interesting fact at the museum is that there are about 6,389,451 American alligators in the southern United States. What value does the digit 8 represent in the amount of alligators in the southern United States?

a. 8 million
b. 8 thousand
c. 80 thousand
d. 8 hundred

**C** is the correct answer.

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Slide 6

**Mission #1**

**EXPLORATION**

1. The Ripley museum was keeping track of the number of rolls of tickets that had been used by the museum in the year. They had used 60,604.5 rolls so far. What is this number in expanded form?

a. 60,000 + 6,000 + 600 + 4 + 0.5
b. 600,000 + 6,000 + 600 + 4 + 0.05
c. 60,000 + 600 + 4 + 0.5
d. 66,000 + 6,000 + 60 + 4 + 0.05

**C** is the correct answer.

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Slide 7

**Mission #1**

**EXPLORATION**

2. Students were asked at the museum to measure a stuffed cat's tail. It measured 0.23 meters long. What is this decimal in expanded notation?

a. 2 + 0.3
b. 2 + 3
c. 0.2 + 0.3
d. 0.2 + 0.03

**D** is the correct answer.

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Slide 8

**Mission #1**

**EXPLORATION**

3. The students were comparing beard lengths of characters at the museum. They were trying to put the beards in order. Whose beard was the longest, shortest?

a. The bearded lady's beard was 2.76 in.
b. Col. Mustard's beard (sideburns) was 2.07 in.
c. Mr. T's beard was 2.67 in.
d. Santa's beard was 2.70 in.

A. The bearded lady had the longest beard.
B. Col. Mustard had the shortest beard.

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Slide 9

**Mission #1**

**EXPLORATION**

4. There were a total of 908,070,605 people that visited all of the Ripley museums in the United States last decade. What is the number in expanded form?

a. 900,000,000 + 80,000,000 + 7,000 + 60 + 5
b. 900,000,000 + 800,000,000 + 70,000 + 600 + 5
c. 90,000,000 + 8,000,000 + 70,000 + 600 + 5
d. 90,000,000 + 800,000,000 + 70,000 + 600 + 5

**B** is the correct answer.
Students should write about what they learned today in the space provided at the end of the student handout. (If your class already has a math journal, they could write in it instead.)

**Mission #2**

Welcome to STAAR Ripley’s Believe It or Not.

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**The correct answer is d.**
2. The museum staff ordered pizza for lunch one day. The model shows how much they ate. Relate the model to the fractional and decimal amount of pizza that was eaten?

a. 3.73 and 3/4
b. 0.375 and 1/8
c. 3.75 and 3/8
d. 30.75 and 3 1/4

WARM UP
Mission #2

3. Sumito Matsumura. His eyebrows were 18.1 cm long. What fraction represents this decimal?

a. 18/1
b. 18 1/10
c. 18
b. 10

EXPLORATION
Mission #2

2. Gurning is the art of putting a person’s lips over their nose. People try to copy the Gurning Man’s face when they visit the museum. Three people’s lips were measured when they tried to Gurn. The results are shown below.

Write the letter that represents where each person will be plotted.

Ana – E
Bob – J
Connie – C

EXPLORATION
Mission #2

3. Tom Thumb was a real man. He grew to about 3.72 feet and was a showman for the PT Barnum and Bailey circus. He was the most famous little person of all time. Which numeral shows 3.72 written as a fraction?

a. 3 7/10
b. 3 7/20
c. 7 2/10
d. 3 1/10

EXPLORATION
Mission #2

4. The store at Ripley’s sells lots of oddities. They decided to be creative in the pricing of their sale items and labeled them with fractions. What is 7/10 written as dollars and cents?

a. $7.60
b. $0.70
c. $0.10
d. $7.10

EXPLORATION
Mission #2

The correct answer is A.
### Mission #3

#### Slide 1

Welcome to STAAR Ripley's Believe It or Not.

#### Slide 2

Each day discuss the TEK that will be addressed.

#### Slide 3

The Warm Up section of the lessons includes two problems. Allow students to work the problem as a class. Students should enter their answer in the “warm up” section of the student sheet, then discuss the answers. **B is the correct answer.**
Slide 4

2. The museum uses 3 types of substances to shrink heads. A mixture of \( \frac{1}{2} \) of a pound of sand, \( \frac{1}{2} \) of a pound of rocks, along with some water is used to do this. Which statement compares the amount of sand and rocks correctly?

- a. \( \frac{1}{2} > \frac{1}{2} \)
- b. \( \frac{1}{2} > \frac{1}{2} \)
- c. \( \frac{1}{2} = \frac{1}{2} \)
- d. \( \frac{1}{2} = \frac{1}{2} \)

A is the correct answer.

Slide 5

1. The Ripley’s museum in New York has a 2 headed calf. The museum measured the amount of hay each head had eaten. The head on the right ate \( \frac{2}{3} \) of his bale of hay, while the head on the left ate \( \frac{1}{2} \) of his hay. Write a comparison using <, >, or = for the amount of hay each head ate?

Correct answer \( \frac{3}{4} > \frac{2}{3} \), or they could reverse it \( \frac{2}{3} < \frac{3}{4} \). Make sure the students are able to use 2 comparative statements to represent the same comparison.

Slide 6

2. Students were looking at microscopic figurines created by Willard Wigan at the museum. The table below shows each figure’s height.

<table>
<thead>
<tr>
<th>Disney Figure</th>
<th>Height (cm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cinderella</td>
<td>1</td>
</tr>
<tr>
<td>Anastasia (green)</td>
<td>2</td>
</tr>
<tr>
<td>Drusilla (red)</td>
<td>3</td>
</tr>
<tr>
<td>Lady Tremaine (purple)</td>
<td>4</td>
</tr>
</tbody>
</table>

EXPLORATION

** The question is on the next slide.

Slide 7

Based on the chart that the students made, decide which figurine is taller. Compare the fractions to determine which statement is true.

\[ \frac{1}{2} \]
\[ \frac{2}{3} \]
\[ \frac{1}{2} \]
\[ \frac{3}{4} \]

- a. \( \frac{1}{2} > \frac{2}{3} \)
- b. \( \frac{2}{3} > \frac{1}{2} \)
- c. \( \frac{1}{2} < \frac{2}{3} \)
- d. \( \frac{3}{4} < \frac{1}{2} \)

B is the correct answer.

Slide 8

3. Cats communicate using at least sixteen cat words. The museum had an exhibit that compared two different cats and how many words each knew. Which cat knew the most words? Write a comparison statement.

Milo

Sid

Milo knew more words. \( \frac{5}{8} > \frac{4}{10} \) or \( \frac{4}{10} < \frac{5}{8} \) both are the correct answer.
4. Believe It or Not, most grasshoppers take 40 minutes to cast off their exoskeleton. The exhibit brought real grasshoppers to test this fact.

The red-legged grasshoppers shed their exoskeleton in $\frac{2}{3}$ of that time.

The lubber grasshoppers shed their exoskeleton in $\frac{4}{5}$ of that time.

Explain:

Make sure they plot each grasshopper time correctly. $\frac{4}{5} > \frac{2}{3}$ and $\frac{2}{3} < \frac{4}{5}$

Students should write about what they learned today in the space provided at the end of the student handout. (If your class already has a math journal, they could write in it instead.)

**Mission #4**

Welcome to STAAR Ripley’s Believe It or Not.
### Slide 2

**Mission #4**

4.3E Represent and solve addition and subtraction of fractions with equal denominators using objects and pictorial models that build to the number line and properties of operations.

Each day discuss the TEK that will be addressed.

### Slide 3

**Mission #4**

**WARM UP**

1. Believe It or Not, Alaska is the only state in the United States that can be typed on a single row on a keyboard. $\frac{3}{5}$ of the letters from the row are used to type the word Alaska. What fraction of the letters on the row is not used? 

2. Scott's family drove $\frac{3}{2}$ miles to the museum and drove the same distance plus an extra mile to get back home. How far did they travel to and from the museum? Write an equation then solve.

The Warm Up section of the lessons includes two problems. Allow students to work the problem as a class. Students should work the problems on their student handout and enter the answer in the “warm up” section. Discuss the answers and strategies for solving the problems. $\frac{9}{9} - \frac{4}{9} = \frac{5}{9}$ is the answer.

### Slide 4

**Mission #4**

**WARM UP**

2. Scott’s family drove $\frac{3}{2}$ miles to the museum and drove the same distance plus an extra mile to get back home. How far did they travel to and from the museum? Write an equation then solve.

Allow students to work the problem as a class, then press “enter” to allow each of the answers slide in. Students should work the problems on their student handout and enter the answer in the “warm up” section before seeing the answer choices. Discuss the answers and strategies for solving the problems. $7\frac{4}{6}$, or $7\frac{2}{3}$ is the answer.

### Slide 5

**Mission #4**

**EXPLORATION**

1. At Ripley’s Believe It or Not, the portrait of Justin Bieber is made of gummy bears and licorice candy. They used $\frac{2}{5}$ of a case of red gummies, $\frac{3}{5}$ of a case of blue gummies and some tan gummies. They used a total of $\frac{9}{5}$ cases of gummies. Use the number line to solve for the number of tan gummies used.

There will be 4 “Explorations” problems. Allow students to work independently, in partners, groups, etc....whatever works best for your students. After solving the problems, discuss the answers and strategies used. Allow students to explain their answer choices. Have students use the number line in their journal and write an addition problem to find the fraction of tan gummies.

$\frac{4}{5} + \frac{2}{5} + \frac{3}{5} = \frac{9}{5}$ or $1\frac{4}{5}$ cases of gummy bears is the answer.
2. The museum has a portrait of Albert Einstein made of toast. They mixed 2 types of toast together. They used \( \frac{1}{3} \) of a bag of wheat and \( \frac{2}{3} \) of a bag of white bread. How much more wheat toast did they use than white toast?

\[
\begin{align*}
&\quad \text{a. } \frac{1}{3} \\
&\quad \text{b. } \frac{1}{2} \\
&\quad \text{c. } \frac{1}{3} \\
&\quad \text{d. } \frac{1}{2}
\end{align*}
\]

The correct answer is \( \frac{3}{10} \). Allow students to explain their reasoning before showing the answer choices.

3. The museum in Baltimore houses a replica of Queen Victoria’s crown. The model below shows the fraction of each type of jewel used. If \( \frac{3}{5} \) of the jewels are rubies, and \( \frac{1}{5} \) are diamonds, then how much of the crown are emeralds? Use the strip diagram to figure out the fractional part of the emeralds used.

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Mission #5

Welcome to STAAR Ripley’s Believe It or Not.

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The Ripley’s in Baltimore has an interactive high wire exhibit. The table below shows the distance each person was able to walk.

What is the difference of the distance that Carl and Eric walked?

<table>
<thead>
<tr>
<th>Trapeze Artist</th>
<th>Distance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carl</td>
<td>399.8 in.</td>
</tr>
<tr>
<td>Eric</td>
<td>462.25 in.</td>
</tr>
<tr>
<td>Janet</td>
<td>389.9 in.</td>
</tr>
</tbody>
</table>

a. 73.45 in.
b. 137.65 in.
c. 62.45 in.
d. 173.45 in.

B is the correct answer.

Becca bought 3 dolls from the gift shop. The greatest amount she paid for a doll was $3.60. The least amount she paid was $1.70. What could be the amount total amount Becca paid for the dolls?

<table>
<thead>
<tr>
<th>Doll Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. $11.50</td>
</tr>
<tr>
<td>b. $8.30</td>
</tr>
<tr>
<td>c. $5.10</td>
</tr>
<tr>
<td>d. $10.80</td>
</tr>
</tbody>
</table>

C is the correct answer.
Slide 5

**Mission #5**

**EXPLORATION**

1. Two friends borrowed the Ripley’s Picadilly circus car to run an errand. Ronnie drove some kilometers to the post office, then 45.25 kilometers from the post office to his home. The total distance he drove was 209.5 kilometers. How far was the post office?
   
   a. 64.25 km
   b. 54.35 km
   c. 124.30 km
   d. 164.25 km

D is the correct answer.

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Slide 6

**Mission #5**

**EXPLORATION**

2. The Ripley’s Ghost train is a real attraction. The train travels 52.4 yards of its 135 yard route to the candy shop. Then it will travel another 37.25 yards to the Wax Museum. How many more yards will the train need to travel to complete its route?
   
   a. 45.35 yards
   b. 89.65 yards
   c. 224.65 yards
   d. 15.12 yards

A is the correct answer.

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Slide 7

**Mission #5**

**EXPLORATION**

3. The Hogwarts castle at the Ripley’s in Baltimore is made up of 616,308 toothpicks. The museum patrons donated 432,468 toothpicks. The castle artist already had 24,312 toothpicks. How many more did he have to buy to complete the castle?
   
   a. 134,926
   b. 183,840
   c. 178,884
   d. 159,528

D is the correct answer.

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Slide 8

**Mission #5**

**EXPLORATION**

4. Students were observing the guitar exhibit. A ukulele on the exhibit was 7.35 inches. The longest guitar was 37.5 inches. The banjo was 4 inches shorter than the guitar. What is the combined length of all three instruments?
   
   a. 11.10 in.
   b. 78.35 in.
   c. 111 in.
   d. 30.15 in.

B is the correct answer.

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Slide 9

In the space in your journal, share what you learned today. Include these words:

- sum
- difference
- joining
- separating

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1. Ripley’s has a moving museum. During the weekdays of Spring Break 745 tourists visited the moving museum. Each day the museum sold an equal number of tickets. How many total tourists visited the museum on Monday and Wednesday?

- a. 298 tourists
- b. 149 tourists
- c. 547 tourists
- d. 745 tourists

**A** is the correct answer.

2. Mr. Boyd was going to purchase tickets for the different exhibits. The table below shows the different exhibit prices. He paid $66.00 for the tickets. If Mr. Boyd bought 2 adult tickets and 4 child tickets for his group, which exhibit ticket did Mr. Boyd buy?

<table>
<thead>
<tr>
<th>Exhibit</th>
<th>Adult Ticket</th>
<th>Child Ticket</th>
</tr>
</thead>
<tbody>
<tr>
<td>Odditorium</td>
<td>$10</td>
<td>$7</td>
</tr>
<tr>
<td>Laser Race</td>
<td>$8</td>
<td>$7</td>
</tr>
<tr>
<td>Wax Museum</td>
<td>$14</td>
<td>$12</td>
</tr>
<tr>
<td>Pick Two Pack</td>
<td>$13</td>
<td>$10</td>
</tr>
</tbody>
</table>

- a. Odditorium
- b. Laser Race
- c. Wax Museum
- d. Pick Two Pack

**D** is the correct answer.

3. During a lunch break the group had pretzel sticks to be shared. Jessica took the 238 pretzel sticks and separated them into 5 equal groups. How many pretzel sticks did each group of students get?

- a. 243, because \(238 \div 5 = 47\) and there are none left
- b. 282, because \(238 \div 5 = 47\) and there are 3 left over
- c. 47, because \(238 \div 5 = 47\) and there are 3 leftovers
- d. 48, because \(238 \div 5 = 47\) and rounded up it becomes 48.

**C** is the correct answer.

4. The people of Alaska use whale ribs as fence posts. The Ripley’s in Alaska has 70 ribs that they want to use for a fence. If each side uses the same number of ribs, how many rib bones will not be used?

- a. 8 ribs
- b. 6 ribs
- c. 4 ribs
- d. 2 ribs

\[70 \div 4 = 17 \text{ r } 2\]

Allow students to explain their answers of how they interrupt the remainder and why their answer is correct.

**D** is the correct answer.

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