Math Problems 5/19/20

Blue

```
   1   1
 1,5 4 3
+1 3 0 8
+2 9 2 5
--------
 5,7 7 6
```

```
 5,7 7 6
-3,7 1 2
--------
 2,0 6 4
```

Green

```
 7 9 9
 8,0 0 0
-4,9 4 7
--------
 3 0 5 3
```

```
    1
 1,4 8 5
+3,4 6 2
--------
 4,9 4 7
```

$$
\begin{array}{r}
0886\text{R}5 \\
6\overline{)5321} \\
0 \\
\hline
53 \\
48 \\
\hline
52 \\
48 \\
\hline
41 \\
36 \\
\hline
5
\end{array}
$$

$$
\begin{array}{r}
2810\text{R}1 \\
3\overline{)8431} \\
6 \\
\hline
24 \\
24 \\
\hline
03 \\
3 \\
\hline
01 \\
0 \\
\hline
1
\end{array}
$$

$$
\begin{array}{r}
1570 \\
4\overline{)6280} \\
4 \\
\hline
22 \\
20 \\
\hline
28 \\
28 \\
\hline
00
\end{array}
$$

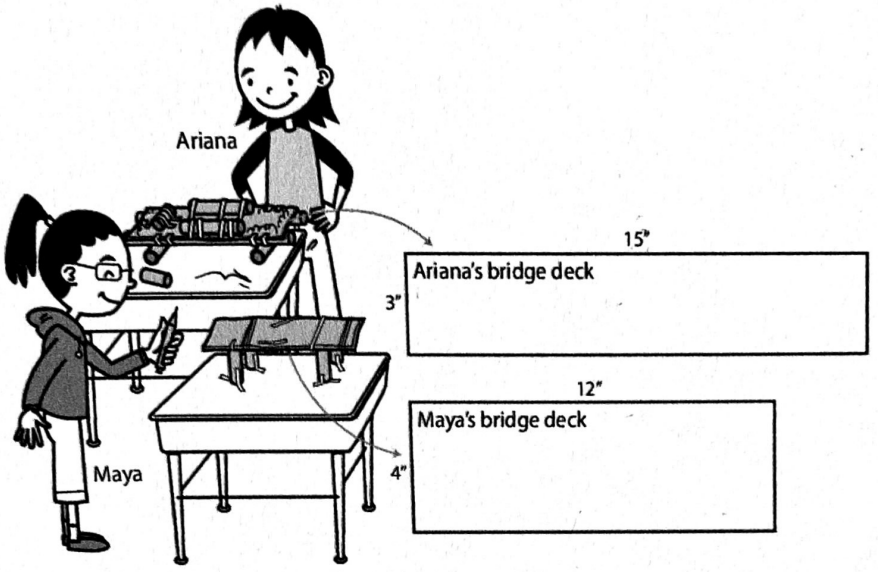
$$
\begin{array}{r}
32 \\
874 \\
\times\quad 5 \\
\hline
4370
\end{array}
$$

$$
\begin{array}{r}
0874 \\
5\overline{)4370} \\
0 \\
\hline
43 \\
40 \\
\hline
37 \\
35 \\
\hline
20 \\
20 \\
\hline
0
\end{array}
$$

NAME Landen | DATE

How Big Is That Bridge?

1 Ariana and Maya built the model beam bridges shown below.



a What is the area of Ariana's bridge deck? Show your work.

15 x 3 = 45

b What is the area of Maya's bridge deck? Show your work.

12 X 4 = 48

c What is the difference between the areas of the two decks? Show your work.

The difference is 3

d Ariana's bridge spanned $10\frac{1}{2}$ inches. Maya's bridge spanned $8\frac{1}{2}$ inches. How much longer was Ariana's span? Show your work.

2 inchs

2 Solve the problems below.

$20 \times \underline{6} = 120$ $\quad \underline{72} \div 8 = 9$ $\quad 45 = \underline{9} \times 5$ $\quad 90 = 30 \times \underline{3}$

Name: Landon

Invisible Forces Checkpoint

After watching the Mystery Science videos, how would you answer these questions?

Multiple Choice ~ circle the letter to show what you know about forces.

1. Why is it hard to win a tug-of-war against a group of teachers?
   a. Teachers try really hard.
   b. Teachers have more legs than students.
   c. Teachers have a lot of friction.
   d. Teachers can push really hard.

2. The last rubber band caused the watermelon to burst because _____.
   a. it was stronger than the other rubber bands.
   b. it was thicker than the other rubber bands.
   c. it was the last rubber band in the bag.
   d. it created a force that was greater than the force of the watermelon rind.

3. Why was a suspension bridge a good design for the Golden Gate Bridge in San Francisco?
   a. Ships had to pass underneath the bridge.
   b. It has a lot of pillars underneath to support it.
   c. The distance the bridge had to cross wasn't very long.
   d. The water under the bridge was very shallow.

4. Sandpaper sliders don't slide very fast because _____.
   a. sand makes the slider too heavy.
   b. sandpaper creates a lot of friction.
   c. it didn't have enough pennies on it.
   d. the slide isn't long enough.

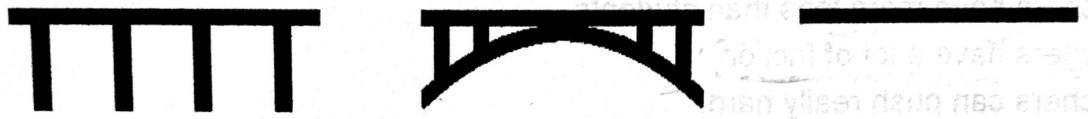
5. Metal sliders slide fast because _____.
   a. it had too many pennies on it.
   b. metal creates a lot of friction.
   c. it is smooth and doesn't rub much.
   d. the slide was at a steep angle. .

Short Response

1. Why do hoppers hop off the table?

I was sick that day. Also did not have supplies

2. Why are pillar bridges and arch bridges stronger than single board bridges?



Because they have an support. Also the weight of the pillars share the weight.

3. Explain how tension and compression are used in bridge design.

To make bridges stronger. Also they are pushes and pull.

4. If you wanted to go down a slide faster, what are some things you could do? Why would those things help?

Not where Jeans because friction where smooth clothing. Have least amount of body parts on slide.