Name: _____ Date: _____

Lighthouse Stairs That Would Not Add Up

Circle group

On a school trip to Gull Point Lighthouse, Wren's class climbed the spiral stairs. The guide said there were ninety-two steps. Wren liked to count. She counted on the way up. She got ninety-three.

"You must have counted wrong," whispered her friend Bo.

Wren did not think so. On the way down, she counted again. She got ninety-three. The guide said ninety-two again and shrugged.

Back at school, Wren kept thinking about it. She drew the stairs in her notebook. She saw that the guide counted only the steps. She had also counted the little stone ledge at the top, where the stairs met the floor.

On the next visit, she asked the guide to check. They counted slowly together. At the top, he laughed. "Ninety-two steps and one landing," he said. "You are right, and so am I."

Wren wrote both numbers on her ticket. She learned that two people can count the same thing and both be right, if they agree on what to count.

Questions

1. How many steps did the guide say there were?

_____

_____

2. How many steps did Wren count?

_____

_____

3. What did Wren do back at school?

_____

_____

4. What was at the very top of the stairs?

_____

_____

5. Why were the numbers different?

_____

_____

6. What did Wren learn?

_____

_____

Words to know

spiral: winding around in a curve, like a coil
ledge: a narrow, flat shelf that sticks out
landing: a flat part at the top or bottom of stairs

Talk together (every group has these)

1. Find one fact that every group read. How did your sheet say it?
2. What did your sheet tell you that you think another group's did not? Ask them.
3. What is one question about this topic that none of the sheets answered?

Name: _____ Date: _____

Lighthouse Stairs That Would Not Add Up

Triangle group

On a school trip to Gull Point Lighthouse, Wren's class climbed the spiral stairs to the lamp room. The guide said there were exactly ninety-two steps. Wren liked counting, so she counted on the way up. She got ninety-three.

"You must have miscounted," whispered her friend Bo.

Wren did not think so. On the way down, she counted again and got ninety-three. The guide said ninety-two a second time and shrugged.

Back at school, Wren could not stop thinking about it. She drew a picture of the stairs in her notebook. She realized the guide had counted only the steps, but she had also counted the little stone ledge at the very top, where the stairs met the floor of the lamp room.

At the next visit, she asked the guide if she could check. The guide counted slowly with her, pointing at each step. When they reached the top, he laughed. "Ninety-two steps and one landing," he said. "You are right, and so am I."

Wren wrote both numbers on the back of her ticket. She had learned that two people can count the same thing and still be correct, if they agree on what to count first.

Questions

1. How many steps did the guide say there were?

_____

_____

2. How many steps did Wren count?

_____

_____

3. What did Wren do back at school?

_____

_____

4. What was at the very top of the stairs?

_____

_____

5. Why did Wren and the guide get different numbers?

_____

_____

6. What did Wren learn from the puzzle?

_____

_____

Words to know

spiral: winding around in a curve, like a coil
miscounted: counted wrongly
ledge: a narrow, flat shelf that sticks out
landing: a flat part at the top or bottom of stairs

Talk together (every group has these)

1. Find one fact that every group read. How did your sheet say it?
2. What did your sheet tell you that you think another group's did not? Ask them.
3. What is one question about this topic that none of the sheets answered?

Name: _____ Date: _____

Lighthouse Stairs That Would Not Add Up

Square group

During a school trip to Gull Point Lighthouse, Wren's class climbed the spiral staircase to the lamp room. The guide announced that there were exactly ninety-two steps. Wren, who enjoyed counting, tallied them as she climbed. She reached ninety-three.

"You must have miscounted," whispered her friend Bo.

Wren was not persuaded. On the way down, she counted a second time and arrived at ninety-three again. The guide repeated ninety-two and shrugged.

Back at school, Wren could not stop thinking about the mystery. She sketched the staircase in her notebook, and gradually she realized what had happened. The guide had counted only the steps, but she had also counted the narrow stone ledge at the very top, where the stairs met the floor of the lamp room.

During the next visit, she asked the guide whether she could check. They counted slowly together, pointing at each step. When they reached the top, he chuckled. "Ninety-two steps and one landing," he said. "You are right, and so am I."

Wren wrote both numbers on the back of her ticket. She had learned that two people can count the same thing and still both be correct, provided they agree on what to count first.

Questions

1. How many steps did the guide announce there were?

_____

_____

2. How many steps did Wren count?

_____

_____

3. What did Wren do back at school to work out the mystery?

_____

_____

4. What was at the very top of the staircase?

_____

_____

5. Why did Wren and the guide arrive at different numbers?

_____

_____

6. What lesson did Wren learn from the puzzle?

_____

_____

Words to know

spiral: winding around in a curve, like a coil
miscounted: counted wrongly
ledge: a narrow, flat shelf that sticks out
landing: a flat part at the top or bottom of stairs

Talk together (every group has these)

1. Find one fact that every group read. How did your sheet say it?
2. What did your sheet tell you that you think another group's did not? Ask them.
3. What is one question about this topic that none of the sheets answered?

For the teacher: Lighthouse Stairs That Would Not Add Up

Each student sheet carries a shape, not a level. The same topic and facts, written three ways.

Circle: Lighthouse Stairs That Would Not Add Up

Easier · 172 words · Flesch-Kincaid grade 2

1. Ninety-two.
2. Ninety-three.
3. She drew the stairs in her notebook.
4. A little stone ledge, or landing.
5. Wren counted the top ledge too, and the guide did not.
6. Two people can both be right if they agree on what to count.

Triangle: Lighthouse Stairs That Would Not Add Up

This passage · 204 words · Flesch-Kincaid grade 3.2

1. Ninety-two.
2. Ninety-three.
3. She drew a picture of the stairs in her notebook.
4. A little stone ledge, or landing.
5. Wren counted the top ledge too, and the guide counted only the steps.
6. Two people can both be right if they agree on what to count.

Square: Lighthouse Stairs That Would Not Add Up

Harder · 206 words · Flesch-Kincaid grade 4.6

1. Ninety-two.
2. Ninety-three.
3. She sketched the staircase in her notebook.
4. A narrow stone ledge, or landing.
5. Wren counted the ledge at the top too, and the guide counted only the steps.
6. Two people can both be right if they agree on what to count.