A Right About Rectangular Areas

Name_____ Date_____

Use the formula: **Area = length x width (A = l x w)** to find areas as needed.

1. A table top

Celine calculated the area for the lunch table to 48 ft^2. One side of her desk measured 6 feet long and she forgot the width. What was the length and how do you know?

Answers

ANSWERS MAY VARY, but may include,

6 x 8 = 48; 48

2. A container top

Trevor's container top measured 18 cm by 24 cm and his calculated area was 243 cm^2. Milo knew right away the answer was incorrect, due to a simple multiplication rule. What did Milo know?

ANSWERS MAY VARY, but may include, one might notice 10 x 24 is 240 and 18 is much bigger than 10; also multiplying two even numbers yields an even product.

3. A memory card

Jackson calculated a memory card's area to be 15 cm^2. Ms. Halcyon, the math teacher, reminded him that the card's length and width both had even lengths, but his answer was close: within 4 cm^2. Describe potential dimensions for the memory card and explain your reasoning.

ANSWERS MAY VARY, but could include

2 cm x 6 cm =12 cm^2,

4 cm x 4 cm =16cm^2

4. A floor

Two rugs covered a floor with an area of 24 in. by 48 in. If both rugs had the same length and width, what are their dimensions?

ANSWERS MAY VARY, but may include: any two lengths/widths equal to 24 in. (multiplied by) any two lengths/widths that add up to 48 in. -or- any two lengths/widths equal to 48 in., (multiplied by) any two lengths/widths that add up to 24 in. Example, two rugs with areas: 24 in. x 10 in. and 24 in. x 38 in. , 24 in. are the same for each, and 38 in. + 10 in. = 48 in.

5. What Do You Think?

What would change if you used a different shape other than a square to calculate area for a rectangular figure?

ANSWERS MAY VARY, but may include any duplicate unit of the same shape and size that completely covers the area of a rectangular figure (i.e. tessellations, smaller rectangles or triangles that fit perfectly in a shape, etc.)