

**break down ‘area 924328 square meters’ circumference and ‘0.165km perimeter’ with more dimensions. if a ship had these dimensions seen from above, give examples of sizes to cognitively understand this size**

< To help you cognitively understand the size of a ship with an area of 924,328 square meters and a 0.165 km perimeter, let’s break down the dimensions using two different shapes: a rectangle and a circle. These shapes will give you a general idea of the size, although the real shape of a ship seen from above would be more complex.

Rectangle: Let’s assume a rectangular shape for the ship. If we have a 0.165 km perimeter, that is equal to 165 meters. For a rectangle, the perimeter is given by the formula  $P = 2l + 2w$ , where  $P$  is the perimeter,  $l$  is the length, and  $w$  is the width. Let’s assume the length is three times the width:  $l = 3w$

Substitute this into the perimeter equation and solve for the width:  $165 = 2(3w) + 2w$   $165 = 8w$   $w = 20.625$  meters

Now find the length:  $l = 3 * 20.625 = 61.875$  meters

Now we have a rectangle with dimensions of approximately 61.875 meters by 20.625 meters. The total area would be  $61.875 * 20.625 = 1,275$  square meters. Note that this does not match the given area of 924,328 square meters because the actual shape of the ship is more complex than a simple rectangle.

Circle: Now let’s assume a circular shape for the ship. The given circumference is equivalent to the perimeter in this case. The formula for the circumference of a circle is  $C = 2\pi r$ , where...