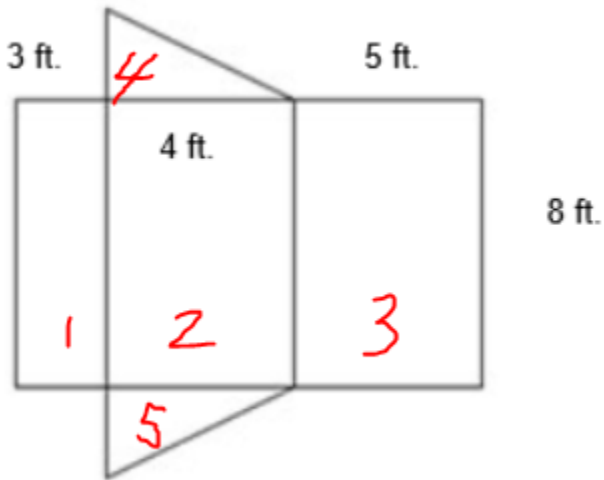**Possible Solution**

Billy is creating a box to ship his model airplane. It will ship best in the shape of a triangular prism. How much cardboard will Billy need to make his box in the shape of a triangular prism?

3 ft.   4   5 ft.

4 ft.

8 ft.

1   2   3

5

Rectangle 1 $A = l \cdot w$ $A = 3 \cdot 8 = 24$ ft^2
Rectangle 2 $A = l \cdot w$ $A = 4 \cdot 8 = 32$ ft^2
Rectangle 3 $A = l \cdot w$ $A = 5 \cdot 8 = 40$ ft^2
Triangle 4 $A = \frac{1}{2} b \cdot h$ $A = \frac{1}{2} (3 \cdot 4) = 6$ ft^2
Triangle 5 $A = \frac{1}{2} b \cdot h$ $A = \frac{1}{2} (3 \cdot 4) = 6$ ft^2

Add up the areas of all 5 figures.

$24 + 32 + 40 + 6 + 6 = 108$ ft^2

Billy will need 108 square feet of cardboard to make his box.