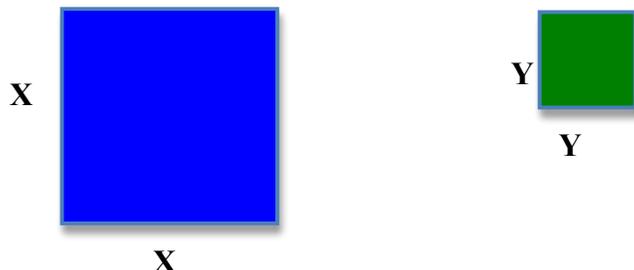

Performance Task

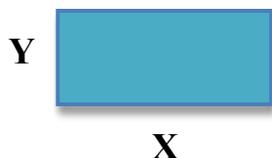
Rectiles

Nicolas is making rectangular designs out of different tiles. He uses two different sized squares that will never line up exactly, no matter how many tiles are used. Nicolas labels the sides of the big square **X** and the sides of the small square **Y**.



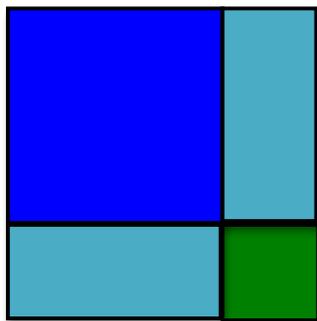
1. What is the area of the large square? _____.

Nicolas uses one more tile that is rectangular in shape. The length of the rectangle is **X**, the same as a side of the large square. The width of the rectangle is **Y**, the same as a side of the small square.



2. What is the area of the rectangle? _____.

Nicolas arranges the tiles in a rectangular configuration.

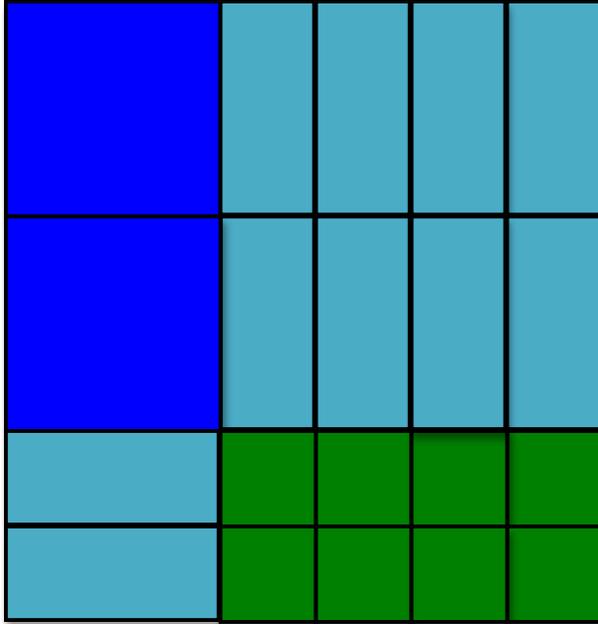


3. What are the lengths of sides of the rectangular configuration?

_____ by _____

4. What is the area of the rectangular configuration? Explain

Nicolas creates a different rectangular configuration out of the three tiles.



5. What are the side lengths of the rectangular configuration?

6. What is the area of the rectangular configuration?

7. Nicolas re-arranges all these tiles and makes another shaped rectangle with different side lengths than the rectangle above. Determine the side lengths of the new rectangular configuration? Show how you figured it out using algebra.

8. Draw the rectangular configuration you derived.

