Perplexing Puzzle

Activity 1

Original Length (in cm)	**Process** (in cm)	**New Length** (in cm)
2		
3		
4		
5		
6		
7		
8		
11		
X		Y

1. What is the ratio of new length to original length for each row? What does this ratio represent?

2. If a piece of the original puzzle had a side with length 14 cm, what would be the length of the side of the new puzzle piece?

3. If the new puzzle piece has a side of length 22.5 cm, what was the length of the side of the original puzzle piece?

4. If you wanted to make another new puzzle where the original piece with a side of 4 cm becomes 7 cm, how would you determine the lengths of the other sides of the puzzle pieces?

5. If your new puzzle piece has a side length of 12 cm and you wanted to reduce the side length to 5 cm, how would you determine the lengths of the other sides?

6. If you wanted to make a new puzzle where one side of the new puzzle is 2.5 times as long as a side of the original puzzle, what equation could you use to determine the lengths of the other sides?