1. Rectangle A has a base of 2 and a height of 3. Draw Rectangle A on the grid paper.

2. Calculate the perimeter and area of Rectangle A. Record these in Table 1.

3. Rectangle B is created from Rectangle A by using a scale factor of 2. (This means that the dimensions of Rectangle A were multiplied by 2 to get Rectangle B's dimensions.)

   What are the base and height of Rectangle B? Base = _____ Height = _____

4. Draw Rectangle B on the grid paper.

5. Calculate the perimeter and area of Rectangle B. Record these in Table 1.

6. How many Rectangle A's fit inside Rectangle B? Record this in Table 1.

7. Rectangle C is created from Rectangle A by using a scale factor of 3.

   What are the base and height of Rectangle C? Base = _____ Height = _____

8. Draw Rectangle C on the grid paper.

9. Calculate the perimeter and area of Rectangle C. Record these in Table 1.

10. How many Rectangle A's fit inside Rectangle C? Record this in Table 1.

11. Rectangle D is created from Rectangle A by using a scale factor of 4.

    What are the base and height of Rectangle D? Base = _____ Height = _____

12. Draw Rectangle D on the grid paper.

13. Calculate the perimeter and area of Rectangle D. Record these in Table 1.

14. How many Rectangle A's fit inside Rectangle D? Record this in Table 1.

TABLE 1

Rectangle	Perimeter	Area	Number of Rectangle A's that fit inside this Rectangle
A			1
B			
C			
D			

15. Use TABLE 1 to help you fill in TABLE 2.

TABLE 2

Rectangle	Scale Factor Used	What can you multiply Rectangle A's perimeter by to get the perimeter of the new rectangle?	What can you multiply Rectangle A's area by to get the area of the new rectangle?
B			
C			
D			

1.   Look at Table 2. How can I find the "new" perimeters by using the scale factor and the "original" perimeter? (The Perimeter of A is considered the "original" perimeter.) Write a formula using words.

2.   Look at Table 2. How can I find the "new" areas by using the scale factor and the "original" area? (The Area of A is considered the "original" area.) Write a formula using words.

3.   If a scale factor of 5 is used to change the dimensions of Rectangle A to get Rectangle E, what do you think Rectangle E's perimeter would be? Explain or show work.

4.   If a scale factor of 5 is used to change the dimensions of Rectangle A to get Rectangle E, what do you think Rectangle E's area would be? Explain or show work.

5.   If the dimensions of a rectangle with a perimeter of 16 inches and an area of 15 square inches are changed by using a scale factor of 2, what would the new perimeter and area be? Explain or show work.

6.   At the Pizza Palace, the diameter of the 8-inch pizza was doubled to create the 16-inch pizza. If you were the owner of the Pizza Palace and charged $7 for an 8-inch pizza, what should you charge for a 16-inch pizza? Explain how you determined the price for the 16-inch pizza.