JMJ

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Math 8

**Chapter 11**

**SET A**

DIRECTIONS: SHOW ALL WORK ALGEBRAICALLY IN YOUR NOTEBOOK.

1.) If the area of a square is 169 m2, find the perimeter of the square. (Note what is the length of one side of the square?)

2.) A triangle has an area of 84 m2. If the height is 2.4 m, how long is the base?

3.) A beacon at the top of a lighthouse revolves and illuminates a circular area of 2, 826 ft2. How far in each directions from the lighthouse does the ray of light reach?

4.) A rectangular garden has a perimeter of 128 ft. If the length is 40 ft, what is the area of the garden?

5.) The ratio of length to width of a rectangle is 4 : 2. If the perimeter of the rectangle is 120 in, find the length and the width.

6.) The ratio of a rectangle’s width to length is given as 5 : 9. If the perimeter is 140 m, find the width and the length.

7.) The ratio of a rectangle’s length to width is given has 3 : 2. IF the area is 600 m2, find the length and the width.

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**SET B**

1.) The width and length of a rectangle are in the ratio of 3 : 4. If the perimeter of the rectangle is 56 cm, what are the dimensions of the rectangle?

2.) The length of a rectangular garden is twice its width. If the area of the garden is 162 m2, what is the length of the garden?

3.) A rectangle has an area of 288 m2 and a width of 16 m. What is the perimeter of the rectangle?

4.) The perimeter of a square is 108 cm. Find its area.

5.) The height of a parallelogram is the same length as the base of a triangle. The area of the triangle is 52 m2 and its height is 16 m. Find the area of the parallelogram if its base is 10m.

6.) A square has an area of 225 m2. Find the perimeter of a rectangle whose width is equal to the measure of one side of the square and whose length is 21 m.

7.) The side of a square having a perimeter of 48 m is equal to the width of a rectangle. If the perimeter of the rectangle is twice that of the square, how long is the rectangle?

8.) A searchlight revolves and illuminates an area of 5, 024 m2. How far in each direction from the base of the light does the ray reach?

For questions 9 & 10: Find the area of the shaded region.

9.) 10.)