Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Math 620 B Block

Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Exponents and Radicals Unit

**Homework Due: Monday, May 15**

1. The table below shows figures composed of circles. The number of circles in each figure follows a pattern, as shown.



1. Predict the number of circles in Figure 5. Show or explain how you got your answer.
2. Determine the ratio of the number of circles in figure 2 to figure 1

(Ratio = #circles figure 2 / # circle figure 1).

1. Do the same for each pair for figures:

Ratio number of circles in Figure 3 to Figure 2:

Ratio number of circles in Figure 4 to Figure 3:

1. What is the pattern? Explain how you would find the number of circles in figure 10.
2. Maya leaves school to go home. She walks 6 blocks North and then 8 blocks west.

How far is Maya from the school?

Use the Pythagorean Theorem to help you solve Maya’s distance from school. (Remember a2 + b2 = c2)



**START**

6

**END**

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Solution: Maya is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ blocks from school.