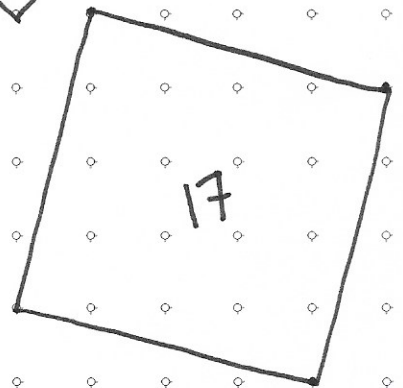
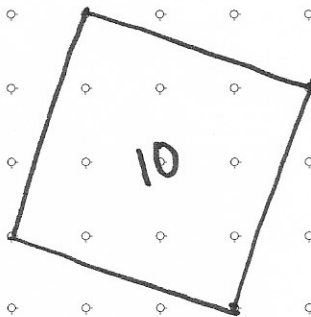
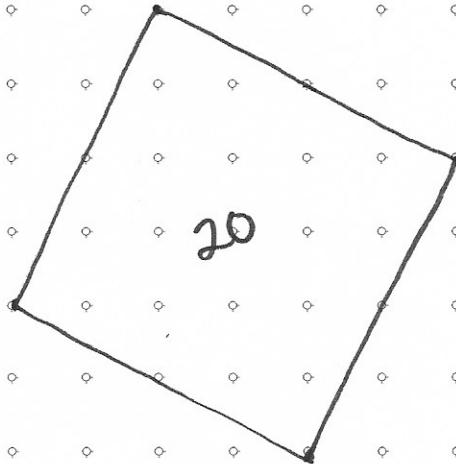
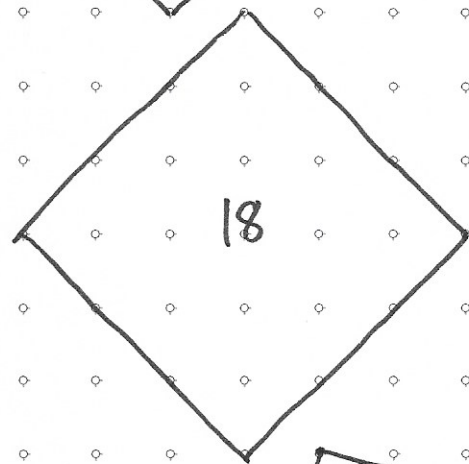
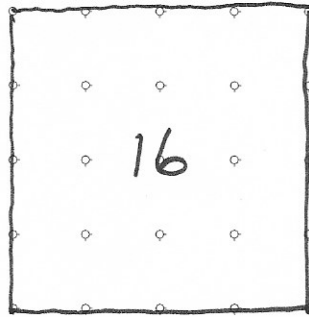
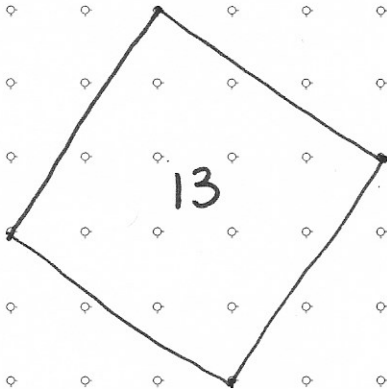
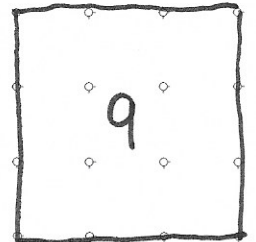
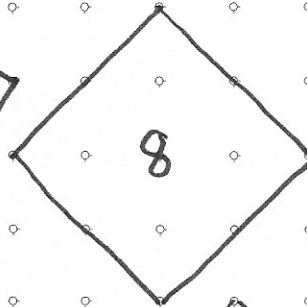
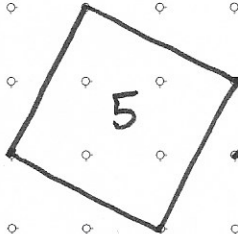


BLM - Dot Paper



Strand: Numbers and Operations **Name:** KEY
Skill Addressed: Understand Exponents and Radicals **Block:**
Activity: *Visualizing Squares and Square Roots*

Work in Groups of 2 or 3:

Using Dot Paper draw squares of area 1, 4, 9 and 16. Make a chart or organize your work in another way to clearly show how the area of the square is connected to the length of its side.

Can you make a square of area 5 using the dot paper? Hint: how long would its side have to be? Use your knowledge of square roots and of Pythagorean's Theorem to construct one of the sides of a square that has an area of 5.

Can you use the dot paper to construct a side of this length?

If you could not make a square of area 5, try to make one with area 2.

Make as many squares on dot paper as you can, making squares with areas from 1 to 24. Can you make all of them? How do you know you have all of the possible squares?

Explain clearly on a poster. Your teacher may ask you to present and explain your results.

Size of Square (in square units)	1	2	4	5	8	9	.	.	.
Length of side (in units)	1	$\sqrt{2}$	2	$\sqrt{5}$	$\sqrt{8}$ or $2\sqrt{2}$	3	.	.	.