Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Per.\_\_\_\_\_\_\_

U12 CW #1*Squares and Squares*

On dot paper from the other side:

1) Create as many different squares with areas from 1 - 100 as possible. On the grid, a horizontal or vertical segment joining two dots has a length of 1. **Each of the vertices of the square must be on a dot.**

2) Find the area of each square you made and label each square with its area.

3) Complete the table below using the squares you created.

|  |  |
| --- | --- |
| **Area** | **Side Length** |
|  |  |
|  |  |
|  |  |
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|  |  |





1. Complete the following table **5.** Find the missing measure, remember to include

 the proper units and exponents.

|  |  |
| --- | --- |
| Area(square units) | Length of Side(units) |
| 1 |  |
| 9 |  |
|  | 5 |
| 2 |  |
| 5 |  |
|  | $$\sqrt{13}$$ |
|  | $$\sqrt{5}$$ |
| 100 |  |
|  | 20 |

 **a.**

A =

s = 11cm

 **b.**

A = 16 m2

s =

**Directions:** Complete the following sentences. **Provide examples to support your statements.**

1. A perfect square is created when…
2. A non-perfect square is created when …

**7.** To find the area of a square given the side length of the square…

**8.** To find the side length of a square given the area of the square…

**9.** Simplify the following

**a.** $\sqrt{36}$ **b.** $\sqrt{121}$ **c.** $\sqrt{16}$

**d.** $\sqrt{1}$ **e.** $\sqrt{100}$ **f.** $\sqrt{49}$

**g.** $\sqrt{625}$ **h.** $\sqrt{2500}$ **i.** $\sqrt{225}$