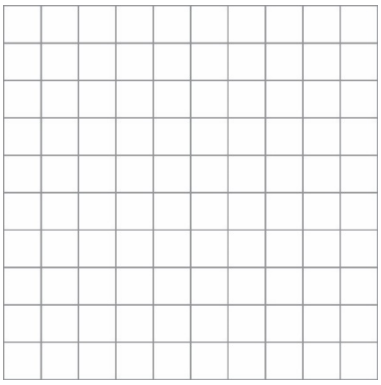
Name_____ Date_____

Number
Unit 1 Line Master 5a

Investigating Perfect Square Fractions

1. This grid has 100 grid squares.



a) Shade grid squares to model $\frac{81}{100}$ as a square.

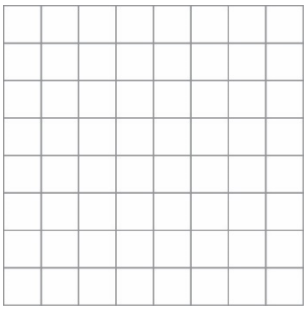
b) What is the side length of the shaded square?

c) The grid has side length 10 units.
Write the side length of your shaded square as a fraction of the side length of the grid (e.g., with denominator 10).

d) What do you notice about the side length of the shaded part?

e) Is $\frac{81}{100}$ a perfect square? Explain.

2. This grid has 64 grid squares.



a) Shade grid squares to model $\frac{36}{64}$ as a square.

b) What is the side length of the shaded square?

c) The grid has side length 8 units.
Write the side length of your shaded square as a fraction of the side length of the grid (e.g., with denominator 8).

d) What do you notice about the side length of the shaded part?

e) Is $\frac{36}{64}$ a perfect square? Explain.

Name_____ Date_____

Number
Unit 1 Line Master 5b

Investigating Perfect Square Fractions (cont'd)

3. Each of these fractions is less than 1. For each fraction:
   - Identify whether it is a perfect square or not. Explain or illustrate using a square.
   - If the fraction is a perfect square, identify its square root. Multiply to check.
   - If the fraction is not a perfect square, explain your reasoning.

   a) $\frac{25}{49}$

   b) $\frac{16}{36}$

   c) $\frac{64}{75}$

   d) $\frac{14}{25}$

4. Each of these fractions is greater than 1. For each fraction:
   - Identify whether it is a perfect square or not.
   - If the fraction is a perfect square, identify its square root. Multiply to check.
   - If the fraction is not a perfect square, explain your reasoning.

   a) $\frac{49}{16}$

   b) $\frac{75}{16}$

   c) $5\frac{4}{9}$

   d) $3\frac{13}{36}$