# Unit 7 Lesson 3: Squares and Equations

## 1 Math Talk: Squaring Values (Warm up)

### Student Task Statement

Mentally evaluate each expression.

$7^2$

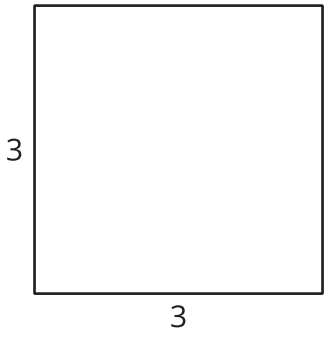
$(-7)^2$

$-7^2$

$(-\frac{2}{5})^2$

# 2 Squares with Squares

## Images for Launch



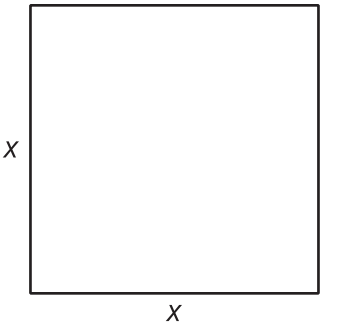

## Student Task Statement

Let $p^2 = q$

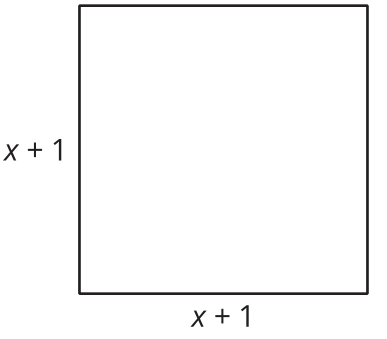
1. Select all pairs of values that could be $p$ and $q$.
   - $p = 6, q = 36$
   - $p = -6, q = 36$
   - $p = -2, q = -4$
   - $p = -10, q = 100$
   - $p = \frac{1}{2}, q = \frac{1}{4}$
   - $p = -0.2, q = 0.4$
2. List one other possible pair of values for $p$ and $q$ that make the equation true.

3. Use the diagrams to find the value of the side length for each square, then find the value for $x$.

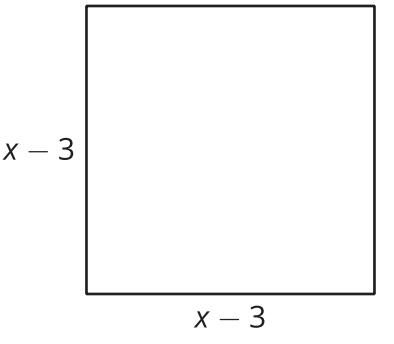
1. The square has an area of 25.




2. The square has an area of 36.




3. The square has an area of 100



# 3 Matching Solutions and Equations

## Student Task Statement

Here are some equations and a list of numbers. Which numbers are solutions to which equations?

1. $c^2 = 121$
2. $5 \cdot d^2 = 500$
3. $80 = m^2 - 1$
4. $100 = (n + 3)^2$

- -13
- -11
- -10
- -9
- -7
- 7
- 9
- 10
- 11
- 13