## Square Numbers

1. Write the first ten square numbers.
2. Some of you may recall the following nursery rhyme.

As I was going to St. Ives, I met a man with seven wives, Each wife had seven sacks, Each sack had seven cats,
Each cat had seven kits.
Kits, cats, sacks, and wives, How many were going to St. Ives?

How are perfect squares used to compute the number going to St. Ives?
3. Add consecutive odd numbers together and what do you find?
A. Complete the following table:

| Consecutive odd numbers | Sum |
| :---: | :---: |
| 1 |  |
| $1+3$ |  |
| $1+3+5$ |  |
| $1+3+5+7$ |  |
| $1+3+5+7+9$ |  |
| $1+3+5+7+9+11$ |  |
|  |  |

B. What did you discover about the sum?
C. Write in words how you would find the sum of the first 4 consecutive odd numbers?
D. Is there a short cut for finding these sums?

