Name: Class:

# The Fibonacci Sequence

1.Can you complete this pattern? Find the next 3 numbers in the sequence.

0, 1, 1, 2, 3, 5, 8, 13, ....., ....., .....,

This sequence is called the **Fibonacci Sequence** and it was discovered by a famous Italian mathematician named Fibonacci in 1202 AD.

Each number in the sequence is the sum of the two previous numbers.

2. Find the missing numbers in the sequence.

0, 1, 1, ....., 3, 5, ....., ....., 21, ....., 55, ....., 144, 233

3. The sum of the squares of two consecutive Fibonacci numbers is another Fibonacci number. Is this statement true? Solve the equations below to find out.

$1^2+1^2=$ ☐

$1^2+2^2=$ ☐ + ☐ = ☐

$2^2+3^2=$ ☐ + ☐ = ☐

$3^2+5^2=$ ☐ + ☐ = ☐

$5^2+8^2=$ ☐ + ☐ = ☐

$8^2+13^2=$ ☐ + ☐ = ☐

4. Add any 10 consecutive numbers from the Fibonacci series and divide the sum by 11. (You can use a calculator.)

0, 1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89, 144, 233, 377, 610, 987, 1597, 2584, ...

What are your observations?

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