

COUNTDOWN Challenge

Consecutive Number Patterns

Study the consecutive numbers below to calculate the sums. Can you discover any patterns?

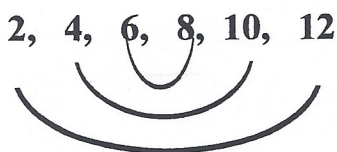
Easy

Consecutive Numbers	Sum
5, 6	_____
5, 6, 7,	_____
5, 6, 7, 8,	_____
5, 6, 7, 8, 9,	_____
5, 6, 7, 8, 9, 10	_____

Consecutive Odd Numbers	Sum
1, 3	_____
5, 7, 9	_____
11, 13, 15, 17	_____

Consecutive Even Numbers	Sum
2, 4	_____
6, 8, 10	_____
12, 14, 16, 18	_____

Check out this short cut for adding consecutive numbers.



$$\begin{aligned} 2 + 12 &= 14 \\ 4 + 10 &= 14 \\ 6 + 8 &= \underline{14} \\ &42 \end{aligned}$$



$$\begin{aligned} 1 + 5 &= 6 \\ 2 + 4 &= 6 \\ &\underline{+3} \\ &15 \end{aligned}$$

Challenging

Consecutive Numbers

- What two consecutive numbers equal 51?

- What three consecutive numbers equal 36?

- What four consecutive numbers equal 22?

- What five consecutive numbers equal 60?

- What six consecutive numbers equal 99?

Consecutive Odd Numbers

- What two consecutive odd numbers equal 8?

- What three consecutive odd numbers equal 27?

- What four consecutive odd numbers equal 96?

Consecutive Even Numbers

- What two consecutive even numbers equal 22?

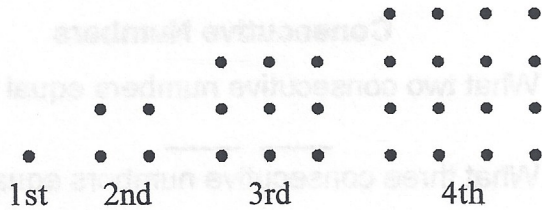
- What three consecutive even numbers equal 66?

- What four consecutive even numbers equal 300?

COUNTDOWN Challenge

Figurate Numbers

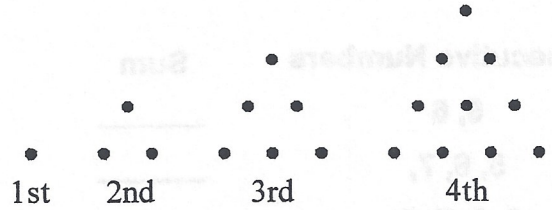
Square numbers can be illustrated with dots in a square pattern. Study the patterns below and complete the chart



<u>Square Number</u>	<u># of Dots</u>
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1st	1
2nd	4
3rd	_____
4th	_____
5th	_____
6th	_____
7th	_____
8th	_____
10th	_____
:	:
25th	_____
50th	_____
n -th	_____

Triangular numbers can be illustrated with dots in a triangular pattern. Study the patterns below and complete the chart.



<u>Triangular Number</u>	<u># of Dots</u>
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1st	1
2nd	3
3rd	_____
4th	_____
5th	_____
6th	_____
7th	_____
8th	_____
10th	_____
:	:
25th	_____
50th	_____
n -th	_____