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## Analyzing Patterns and Relationships

In this worksheet, we will practice generating sequences, comparing such sequences and
finding the relationship between them. For example, if you are asked to generate a sequence starting from 1 such that each next number is 2 times the previous number, the sequence would be $1,2,4,8,16,32$ and so on. Similarly, you can be asked to identify the missing term in a sequence.

## Exercise Questions:

1. Generate a numerical sequence of 'subtract 5' starting from 30 and ending on zero.
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2. Generate a numerical sequence such that every next number is greater than the previous number by 4 .
$\qquad$
3. Write the missing term in this sequence.
$1,3,5,7$, $\qquad$ , 11, 13....
4. Write the next term that will come in the following sequence.
$2,6,10,14,18,22,26$, $\qquad$
5. Generate a numerical sequence such that every next value is sum of previous two numbers. Start from 0,1,.... (Hint: Before writing any number, check the sum of previous two numbers )
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finding the relationship between them. For example, if you are asked to generate a sequence starting from 1 such that each next number is 2 times the previous number, the sequence would be $1,2,4,8,16,32$ and so on. Similarly, you can be asked to identify the missing term in a sequence.

## Answer Key

1. Generate a numerical sequence of 'subtract 5' starting from 30 and ending on zero.
2. Generate a numerical sequence such that every next number is greater than the previous number by 4.
$\qquad$ 1,5,9,13,17,21,25,29
3. Write the missing term in this sequence.
$1,3,5,7$, $\qquad$ 11,13... $\qquad$ 5
4. Write the next term that will come in the following sequence.
$2,6,10,14,18,22,26$ $\qquad$
5. Generate a numerical sequence such that every next value is sum of previous two numbers. Start from $0,1, \ldots$. ( Hint: Before writing any number, check the sum of previous two numbers )
$0,1,1,2,3,5,8,13,21,34,55$
