

<b>STRAND</b>	ALGEBRA
<b>SUB STRAND</b>	Number Patterns
<b>CONTENT LEARNING OUTCOME:</b>	Identify patterns in a series of given numbers.

## LESSON NOTES

Number Patterns - a list of numbers that follow a certain pattern or sequence.

Series or Sequence – a set of things that are in order.

Sequences:

4,            6,            8,            10...            the three dots mean it goes on forever.

↓            ↓            ↓            ↓  
(Infinite)

1<sup>st</sup> term    2<sup>nd</sup> term    3<sup>rd</sup> term    4<sup>th</sup> term

(Term, element or member means the same thing). Therefore the sequence above has a **plus two (+2) pattern**. You have to add two (+2) to the first term to get the next one and so on, for example,  $4+2$   
 $6+2$      $8+2$      $10$  and so on.

## ACTIVITIES

1. Identify and write down the pattern.

a) {3, 7, 11, 15...}

(b.) {5, 11, 17, 23...}

The sequence above has a plus four (+4) patterns.

The sequence above has a plus six (+6) patterns.

(c.) {10, 20, 30, 40...}

(d.) {2, 20, 38, 56...}

The sequence above has a plus ten (+10) patterns.

The sequence above has a plus eighteen (+18) patterns.

2. Identify the patterns and write the next three elements.

(a.) {6, 13, 20, 27, 34, 41, 48, ... } (+7 patterns)

(b.) {46, 58, 70, 82, 94, 106, 118, ... } (+12 patterns)

(c.) {3, 18, 33, 48, 63, 78, 93, ... } (+15 patterns)

(d.) {3, 12, 21, 30, 39, 48, 57, ... } (+9 patterns)

(e.) {8, 13, 18, 23, 28, 33, 38, ... } (+5 patterns)