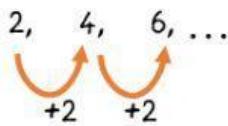


# PATTERNS & SEQUENCES

Question 1 : State the 6<sup>th</sup> term for the following number sequence.

Example :

2, 4, 6, ...  


The pattern is

$$T_1 = 2$$

$$T_4 = 8$$

$$T_2 = 4$$

$$T_5 = 10$$

$$T_3 = 6$$

$$T_6 = 12$$

6 <sup>th</sup> term	
12	

## TIPS

$$n\text{-term} = T_n$$

Term

Term position

(a) 4, 9, 14, 19, ...  


The pattern is

$$T_1 = \boxed{\phantom{00}}$$

$$T_4 = \boxed{\phantom{00}}$$

$$T_2 = \boxed{\phantom{00}}$$

$$T_5 = \boxed{\phantom{00}}$$

$$T_3 = \boxed{\phantom{00}}$$

$$T_6 = \boxed{\phantom{00}}$$

6 <sup>th</sup> term	

(b) -1, -4, -7, ...  


The pattern is

$$T_1 = \boxed{\phantom{00}}$$

$$T_4 = \boxed{\phantom{00}}$$

$$T_2 = \boxed{\phantom{00}}$$

$$T_5 = \boxed{\phantom{00}}$$

$$T_3 = \boxed{\phantom{00}}$$

$$T_6 = \boxed{\phantom{00}}$$

6 <sup>th</sup> term	

(c) 256, 128, 64,...



The pattern is

$$T_1 = \boxed{\quad}$$

$$T_4 = \boxed{\quad}$$

$$T_2 = \boxed{\quad}$$

$$T_5 = \boxed{\quad}$$

$$T_3 = \boxed{\quad}$$

$$T_6 = \boxed{\quad}$$

6 <sup>th</sup> term

(d) 2, 6, 18, ...



The pattern is

$$T_1 = \boxed{\quad}$$

$$T_4 = \boxed{\quad}$$

$$T_2 = \boxed{\quad}$$

$$T_5 = \boxed{\quad}$$

$$T_3 = \boxed{\quad}$$

$$T_6 = \boxed{\quad}$$

6 <sup>th</sup> term

Question 2:

Given the number sequence : 8, 11, 14, 17, 20, 23,...

Which algebraic expression can be used to find the  $n^{\text{th}}$  term of the sequence?

- A.  $2n + 6$
- B.  $3n + 5$
- C.  $5n + 3$
- D.  $6n + 2$

Answer :