



ST. LAWRENCE HIGH SCHOOL
A JESUIT CHRISTIAN MINORITY INSTITUTION



Solutions of worksheet-6

SUBJECT – MATHEMATICS

1st term

Chapter: Sequence & Series

Class: XI

Topic: Geometric Progression (GP)

Date: 30.06.2020

Choose the correct option

(1 X 15= 15)

1. The third term of a GP is b and its common ratio is r ; then its first term is ?
 - a) $\frac{r}{b}$
 - b) $\frac{b}{r}$
 - c) $\frac{b}{r^2}$
 - d) $\frac{r}{b^2}$

2. In a GP, the product of the first three terms is $\frac{27}{8}$; then its middle term is-
 - a) $1/2$
 - b) 1
 - c) $3/2$
 - d) 2

3. The GM of two numbers is $= \pm 12$. If one number is 16, then the other number is -
 - a) 3
 - b) 6
 - c) 8
 - d) 9

4. Five numbers are in GP and their product is 3^{10} ; the third number will be -
a) 2
b) 6
c) 9
d) 12
5. 15, 45 and x are in GP. Then $x = ?$
a) 2
b) 5
c) 8
d) 11
6. If three unequal real numbers are in GP, then their reciprocals are in -
a) AP
b) GP
c) Arithmetico-Geometric series
d) None of these.
7. The relation between AM & GM of two unequal positive number is -
a) $AM > GM$
b) $AM \leq GM$
c) $AM \geq GM$
d) $AM > GM$
8. Which of the followings is not true -
a) The common ratio of a GP is always positive.
b) If each term of a GP is multiplied by 5, the resulting terms are also in GP.
c) If each term of a GP is divided by 5, the resulting terms are also in GP.
d) None of these.

9. If $3x+1$, 14 and 28 are in GP then $x = ?$

- a) 5
- b) 4
- c) 3
- d) **2**

10. The r^{th} term of a GP is $(-1)^{r-1} \cdot 2^{r+1}$, Then the 4th term is –

- a) 16
- b) **-32**
- c) -64
- d) 128

11. The 8th term of the GP $\{2, 6, 18, 54, \dots\}$ –

- a) **$2 \cdot 3^7$**
- b) $2 \cdot 3^6$
- c) $2 \cdot 3^8$
- d) $2 \cdot 3^9$

12. If 5, x , 405 are in GP then $x = ?$

- a) 45
- b) -45
- c) ± 15
- d) **± 45**

13. If 4 is multiplied to each term of a GP, Then the resulting series is

- a -
- a) AP
- b) **GP**
- c) Arithmetico-Geometric series
- d) None of these.

14. If 4 is added to each term of a GP, Then the resulting series is a -
- a) AP
 - b) GP
 - c) Arithmetico-Geometric series
 - d) **None of these.**
15. If A.M. of two numbers is 15 & G.M. is 12, then the numbers are –
- a) 24 & 7
 - b) 26 & 7
 - c) 26 & 6
 - d) **24 & 6**

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