



ST. LAWRENCE HIGH SCHOOL



Ajesuit Christian minority Institution

Subject: Mathematics

Class: X

Date:23.04.2020

Answer key of Worksheet- 15

Chapter- Ratio and proportion

Topic- Proportion

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1. Choose the correct alternative. 1x15=15
- a) Fourth proportional of 3,4 and 6 is Ans i) 8
- b) Third proportional of 8 and 12 is Ans iii) 18
- c) If a is a positive number and $a:27/64 = 3/4 : a$ Ans ii) 9/16
- d) If $2a=3b=4c$ then a:b:c is Ans i) 6:4:3
- e) If $a/3 = b/4 = c/7$ then $\frac{a+b+c}{c} =$ _____ Ans ii) 2
- f) If $4:5 :: 8:10$ then by componendo we have Ans i) 9:5::18:10
- g) If $7:3 :: 14 : 6$ then by componendo dividendo we have Ans iii) 10:4 ::20:8
- h) If $a:b=c:d=e:f$ then $(a+c+e) : (b+d+f)$ is Ans i) a:b
- i) If $x = \frac{4ab}{a+b}$ then $\frac{x+2a}{x-2a} + \frac{x+2b}{x-2b} =$ _____ Ans i) 2
- j) Compound ratio of $ab:c^2$, $bc: a^2$ and $ca : b^2$ is Ans iii) 1:1
- k) If x is the mean proportional of $(x+2)$ and $(x-3)$ then value of x is Ans i) -6
- l) $a/2 = b/3 = c/4 = \frac{2a-3b+4c}{p}$ then p is Ans ii) 11
- m) If $\frac{3x-5y}{3x+5y} = 1/2$, then find the value of $\frac{3x^2-5y^2}{3x^2+5y^2}$ Ans i) 7/8
- n) x,12,y and 27 are in continued proportion then value of x and y are respectively
Ans i) 8 and 18

o) If $5:4 :: 15:12$, then by componendo dividendo we have Ansi) $9:1 :: 27:3$

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