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ST. LAWRENCE HIGH SCHOOL

AJesuit Christian Minority Institution

Subject: Mathematics **Class: X** **Date:21.06.2021**

Worksheet- 2
Chapter- Ratio and proportion
Topic- Proportion

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1. **Choose the correct alternative. 1x15=15**

a) If $(2x^2-5y^2):xy=1:3$ then x:y=_____ i) 3:5 ii) 5:3 iii) 1:5 iv) 5:1

b) Third proportional of 8 and 12 is i)9 ii) 15 iii) 18 iv) 21

c)If a is a positive number and a:27/64 = ¾ : a i) 25/16 ii) 9/16 iii) 16/9 iv) none of these

d)If 2a=3b=4c then a:b:c is i) 6:4:3 ii) 3:4:6 iii) 4:3:6 iv) none of these

e) If a/3= b/4 =c/7 then $\frac{a+b+C}{c}$ =_____ i) 1 ii) 2 iii) 0 iv) 5

f) If 4:5 ::8:10 then by componendo we have i) 9:5::18:10 ii) 8:5 :: 18:2 iii) 32:50 iv) none of these

g) If 7:3 :: 14 :6 then by componendo dividendo we have i) 4:10::20:8 ii) 10:4:: 8:20 iii) 10:4 ::20:8 iv) none of these

h) If a:b=c:d=e:f then (a+c+e) : (b+d+f) is i) a:b ii) b:a iii) f:e iv) none of these

i) If x= $\frac{4ab}{a+b}$ then $\frac{x+2a}{x-2a}$ + $\frac{x+2b}{x-2b}$ =_____ i) 2 ii) 1 iii) 0 iv)4

j) Compound ratio of $ab:c^2$, bc: a^2 and ca : b^2 is i) 2:1 ii) 1:2 iii) 1:1 iv)none of these

k) If x is the mean proportional of (x+2) and (x-3) then value of x is i) -6 ii) 6

iii) 1 iv) -2

l)a/2 = b/3 = c/4 = $\frac{2a-3b+4c}{p}$ then p is i) 10 ii) 0 iii) 11 iv) none of these

m) If $\frac{3x-5y}{3x+5y}$ =½ , then find the value of $\frac{3x^2-5y^2}{3x^2+5y^2}$ i) 7/8 ii) 8/7 iii) ½ iv)3/4

n)x,12,y and 27 are in continued proportion then value of x and y are respectively

i) 9 and 18 ii) 8 and 18 iii) 6 and 20 iv) none of these

o) If $\frac{x^3+3x}{3x^2+1}$ = 341/91, using the properties of proportion solve for x.

i) 10 ii) 11 iii) 9 iv) none of these

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