



ST. LAWRENCE HIGH SCHOOL



A Jesuit Christian minority Institution

Subject: Mathematics

Class: X

Date: 19.06.2021

Worksheet-1

Chapter -Ratio and proportion

Topic-Ratio and proportion

Choose the correct alternative.

$$1 \times 15 = 15$$

- a) If $(a^2+b^2)(x^2+y^2)=(ax+by)^2$ then $x:y =$ _____ i) 1:2 ii) a:b iii) b:a iv) none of these
- b) If $a/3 = b/4 = c/7 = \frac{2a-2b+c}{p}$, then value of p is i) 2 ii) 7 iii) 5 iv) none of these
- c) If 2a, 3b, 6ac and 9bc are in proportion then i) $2a \times 9bc = 3b \times 6ac$ ii) $2a \times 6ac = 3b \times 9bc$ iii) $5b \times 9bc = 18abc$ iv) none of these
- d) The fourth proportional of 6, 9, 12 is i) 24 ii) 30 iii) 18 iv) none of these
- e) what is the number to be added with 2, 4, 6 and 10 to get the result in proportion ?
i) 2 ii) 5 iii) 10 iv) 8
- f) The third proportional of 9 and 15 is i) 20 ii) 25 iii) 18 iv) none of these
- g) The third proportional of $2a^2$ and $3ab$ is i) $\frac{9b^2}{2}$ ii) $\frac{2b}{9}$ iii) $6a^2$ iv) none of these
- h) Mean proportional of $1/12$ and $1/75$ is i) 30 ii) 25 iii) $\frac{1}{30}$ iv) none of these
- i) If $a:b=4:5$ the find out $(3a-2b): (3a+2b)$.

i) 11:1 ii) 2:9 iii) 7:11 iv) 1:11

j) If $p:q:r = 2:3:5$ then $\frac{p+q+r}{r} = \underline{\hspace{2cm}}$ i) 1 ii) 2 iii) $\frac{1}{2}$ iv) none of these

k) If $1/x : 1/y = 3:5$ then $x:y = \underline{\hspace{2cm}}$. i) 5:3 ii) 5:8 iii) 3:5 iv) none of these

l) If $a/b = b/c = c/d = k$ then $a/d = \underline{\hspace{2cm}}$ i) k^2 ii) k^3 iii) k iv) none of these

m) If $a + 1/b = 1$ and $b + 1/c = 1$ then find the value of $c + 1/a$.

i) 2 ii) 3 iii) 0 iv) 1

n) If $\frac{x}{y+z} = \frac{y}{x+z} = \frac{z}{x+y}$, then each ratio is equal to $\underline{\hspace{2cm}}$ i) 1 ii) 2 iii) $\frac{1}{2}$ iv) none of these

o) If compound ratio of $p^2 : qr$ and another ratio is $q^2 : pr$, find another ratio.

i) $q^3:p^3$ ii) $p^3:q^3$ iii) $p:q$ iv) none of these

Aparajita Mondal