EduSahara™ Assignment

Name : Some complex Ratio problems

Chapter : Ratio

Grade : ICSE Grade X

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1. If $a : b = 6:15$ and $b : c = 26:29$, then $a : b : c =$

   (i) $156:388:435$ (ii) $155:390:435$ (iii) $156:390:435$ (iv) $157:390:435$ (v) $156:392:435$

2. If $a : b = \frac{2}{13} : \frac{1}{3}$ and $b : c = \frac{11}{15} : \frac{2}{13}$, then $a : b : c =$

   (i) $\frac{22}{193} : \frac{11}{45} : \frac{2}{39}$ (ii) $\frac{22}{197} : \frac{11}{45} : \frac{2}{39}$ (iii) $\frac{22}{195} : \frac{1}{5} : \frac{2}{39}$ (iv) $\frac{22}{195} : \frac{13}{45} : \frac{2}{39}$ (v) $\frac{22}{195} : \frac{11}{45} : \frac{2}{39}$

3. If $a : b = \frac{10}{39} : \frac{27}{30}$ and $b : c = \frac{4}{33} : \frac{26}{33}$, then $a : b : c =$

   (i) $\frac{40}{1289} : \frac{6}{55} : \frac{39}{55}$ (ii) $\frac{40}{1287} : \frac{6}{55} : \frac{39}{55}$ (iii) $\frac{40}{1287} : \frac{8}{55} : \frac{39}{55}$ (iv) $\frac{40}{1287} : \frac{4}{55} : \frac{39}{55}$ (v) $\frac{8}{257} : \frac{6}{55} : \frac{39}{55}$

4. If $x : y = 9:6$, find $(6x+6y) : (2x+2y)$

   (i) $3:1$ (ii) $2:1$ (iii) $3:3$ (iv) $4:1$ (v) $3:-2$

5. If $(4x+3y) : (3x+8y) = 31:52$, find $x : y$

   (i) $3:5$ (ii) $5:5$ (iii) $4:5$ (iv) $4:3$ (v) $4:8$

6. If $6A = 5B = 8C$, find $A : B : C$

   (i) $20:26:15$ (ii) $19:24:15$ (iii) $20:22:15$ (iv) $21:24:15$ (v) $20:24:15$

7. If $\frac{A}{7} = \frac{B}{6} = \frac{C}{3}$, find $A : B : C$

   (i) $7:3:3$ (ii) $6:6:3$ (iii) $8:6:3$ (iv) $7:8:3$ (v) $7:6:3$

8. If $2A = 3B$ and $7B = 4C$, find $A : C$

   (i) $7:7$ (ii) $6:5$ (iii) $6:9$ (iv) $6:7$ (v) $5:7$

9. If $(8x^2+2xy) : (4xy+6y^2) = 55:16$, find $x : y$

   (i) $5:2$ (ii) $4:2$ (iii) $5:5$ (iv) $6:2$ (v) $5:0$

10. If $(10x^2-29xy+10y^2) = 0$, find $x : y$

    (i) $6:2 \text{ or } 2:5$ (ii) $5:2 \text{ or } 2:8$ (iii) $5:2 \text{ or } 2:5$ (iv) $4:2 \text{ or } 2:5$ (v) $5:2 \text{ or } 1:5$

11. If $a : b = 1:2$, $b : c = 3:6$ and $c : d = 1:3$, then $a : b : c : d =$

    (i) $1:0:4:12$ (ii) $0:2:4:12$ (iii) $2:2:4:12$ (iv) $1:5:4:12$ (v) $1:2:4:12$

12. If a : b = $\frac{5}{3}:\frac{9}{8}$, b : c = $\frac{8}{7}:\frac{7}{4}$ and c : d = $\frac{3}{5}:\frac{6}{7}$,then a : b : c : d =

(i) 1281:864:1323:1890 (ii) 1280:866:1323:1890 (iii) 1280:861:1323:1890 (iv) 1279:864:1323:1890

(v) 1280:864:1323:1890

13. What number must be added to each term of the ratio 64:240 to make it 16:27 ?

(i) 190 (ii) 191 (iii) 192 (iv) 195 (v) 193

14. If $(3x+4y)=(-x-3y)$, find the value of $\frac{(-3x+4y)}{(-3x-4y)}$

(i) $\frac{39}{5}$ (ii) $\frac{37}{7}$ (iii) 7 (iv) $\frac{37}{3}$ (v) $\frac{37}{5}$

15. If $(2x+3y)=(-x-3y)$, find the value of $\frac{(2x^2-3y^2)}{(2x^2+3y^2)}$

(i) $\frac{5}{13}$ (ii) $\frac{5}{11}$ (iii) $\frac{7}{11}$ (iv) $\frac{3}{11}$ (v) $\frac{5}{9}$

16. What quantity must be added to each of the terms of the ratio 165:75 to make it 11:8 ?

(i) 164 (ii) 163 (iii) 165 (iv) 166 (v) 168

17. If $(15x^2-22xy+8y^2)=0$, find $x : y$

(i) 4 : 5 or 2 : 5 (ii) 4 : 5 or 2 : 3 (iii) 5 : 5 or 2 : 3 (iv) 4 : 5 or 1 : 3 (v) 3 : 5 or 2 : 3

Assignment Key

1) (iii)	2) (v)	3) (ii)	4) (i)	5) (iii)	6) (v)
7) (v)	8) (iv)	9) (i)	10) (iii)	11) (v)	12) (v)
13) (iii)	14) (v)	15) (ii)	16) (iii)	17) (ii)	

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