ELITES GRID

Geometry Assignment 1

MASS POINT GEOMETRY(15 Questions)

Webinar Classes For CAT

Q1. ABC is a triangle with AB = 14, BC = 10 and CA = 6. D and E are points on BC and CA respectively such that CD = 3 and CE = 2.5. A line passing through C and the point of intersection of AD and BE cut the side AB at F. Then AF ?

Q2. In ABC points D & E lie on BC & AC respectively . IF AD & BE intersect at M so that AM/DM=3 and BM/EM=4 . If CD/BD in it's minimum form is a/b find a + b.

Q3. In a triangle ABC, median AD & CE intersect at P. PE=1.5, PD=2, & DE= 2.5 . then find area AEDC.

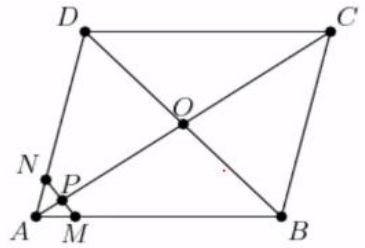
Q4. In ABC , E is midpoint of AC and AD is median of ABC & AF=AB/4 . EF intersect AD at X point . Find AX/XD .

Q5. In ABC, D is on BC such that BD = DC and E is on AC such that AE = 3EC. AD and BE intersect at a point G. If F is a point on AB Find AF/FB .

Q6. In ABC triangle D,E,F are on BC, AC and AB respectively . Given that AD , BE and CF are concurrent at O and AO/OD+BO/EO+CO/FO=92 Find (AO/OD) * (BO/EO)*(CO/FO)

Q7. In triangle ABC, points D, E, and F are on BC, AC, and AB respectively. If BD:DC=1, AE:EC=1/3, and AF:FB=1/2. Line segment EF hits AD at point P. Find the ratio AP:PD.

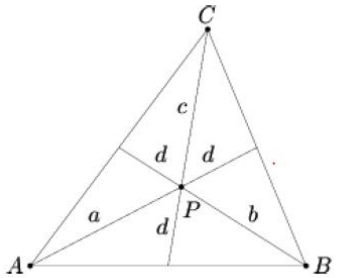
Q8- In Parallelogram ABCD , point M in on AB such that AM/MB=17/1000 and point N is on AD so that AN/AD=17/2009. Let P be the point of intersection of AC and MN . Find AC/AP



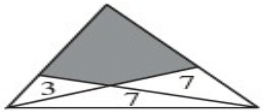
Q9- AD, the median of Δ ABC and CO, the median of Δ ACD intersect at point O. OC, when extended further meets AB at E. AE = 6 cm. Find AB.

Q10. P is inside ABC. APD, BPE, and CPF are drawn with D, E, and F on BC, AC, and BC respectively. Given that AP = 6, BP = 9, PD = 6, P E = 3, and CF = 20 . Find Sum of PF & CP

Q11. Let P be an interior point of triangle ABC and extend lines from the vertices through P to the opposite sides . Let a,b,c and d denote the lengths of the segments . find product abc if a+b+c=43 and d=3.



Q12 A triangle is partitioned into three triangles and a quadrilateral by drawing two lines from vertices to their opposite sides. The areas of the three triangles are 3, 7, and 7, as shown. What is the area of the shaded quadrilateral?



(A) 15 **(B)** 17 **(C)** $\frac{35}{2}$ **(D)** 18 **(E)** $\frac{55}{3}$

Q13- Triangle ABC has AB = 21, AC = 22 and BC = 20. Points D and E are located on AB and AC, respectively, such that DE is parallel to BC and contains the centre of inscribed circle of triangle ABC. Then, DE = m/n, where m and n are relatively prime positive integers. Find m + n.

Q14. In ABC , D is midpoint of BC . E is a point on AC such that AE:EC=2:1 and F is a point on AB such that AF:FB=3:1 Line segments AD and FE intersect at point O . What is the ratio of the area of DOF to the area DOE

Q15 . In ABC , AL is perpendicular to BC and CM is perpendicular to AB . If CL=AL=2BL . Find MC:AM

ANSWERS

1) 5.25
2) 15
3) 13.5
4) 1:2
5) 3:1
6) 94
7) 2:5
8) 3009:17
9) 18
10) 20
11) 441
12) 18
13) 923
14) 9:8
15) 3:1