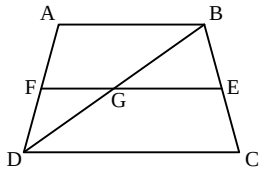
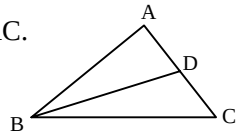
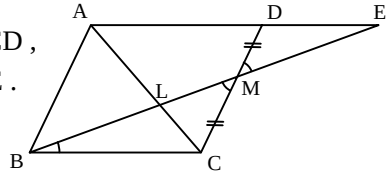
10) In trapezium ABCD , AB || DC and DC = 2.AB . EF is drawn parallel to AB cuts AD in F and BC in E , Such that $\frac{BE}{EC} = \frac{3}{4}$ prove that 7 FE = 10 AB



11) △ ABC is isosceles in which AB = AC and D is a point on AC. such that BC^2 = AC x CD . Prove that BD = BC .



12) Through the mid point M of the side CD of a parallelogram ABCD , the line BM is drawn intersecting AC in L and AD produced in E . Prove that EL = 2 BL .



13) A ladder 15 m long reaches a window which is 9 m above the ground on one side of a street . Keeping its foot at the same point , the ladder is turned to the other side of the street to reach a window 12 m high . Find the width of the street . [ans 21 m]

14) ABC is a right angled triangle with $\angle C = 90^0$. Let BC = a , CA = b & AB = c and let p be the length of the $\perp^r$ from C on AB . Prove that (i) cp = ab

(ii) $\frac{1}{p^2} = \frac{1}{a^2} + \frac{1}{b^2}$

15) In the figure D & E trisect the base BC of right △ ABC in which $\angle B = 90^0$. Prove that 8 AE^2 = 3 AC^2 + 5 AD^2 .