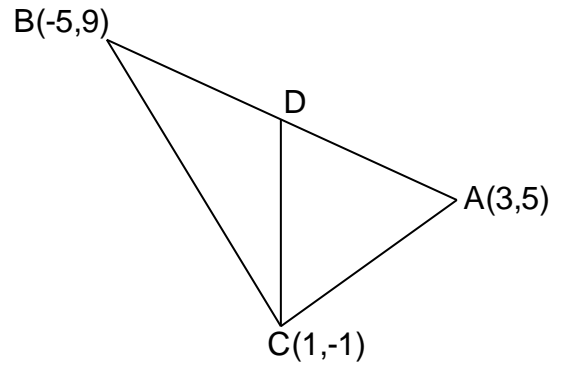


Equation of a Line

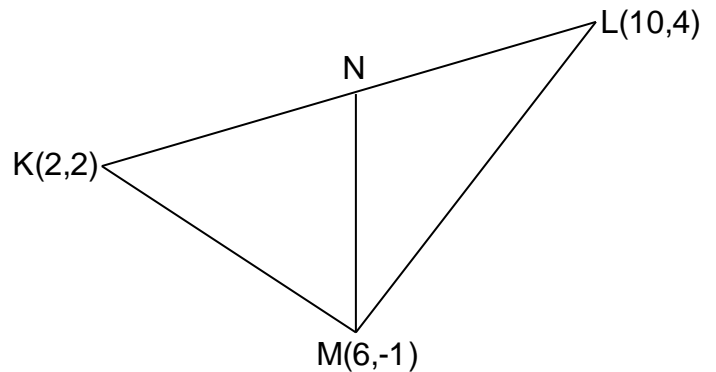
1. The diagram shows triangle ABC.
A has coordinates (3,5), B is (-5,9) and C is (1,-1).

Find the equation of the median CD.



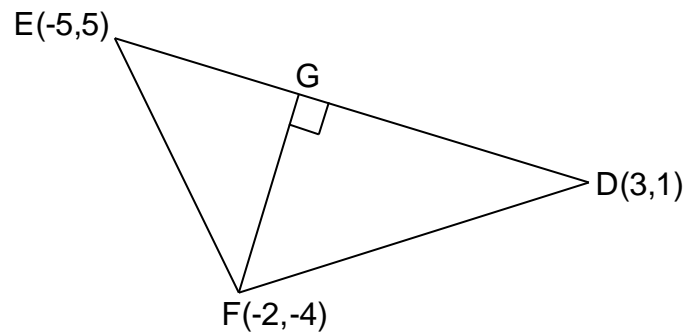
2. Triangle PQR has vertices P(-4,-6), Q(4,8) and R(6,0).
Find the equation of the median from Q.

3. The vertices of a triangle are K(2,2),
L(10,4) and M(6,-1).
Find the equation of the median MN.

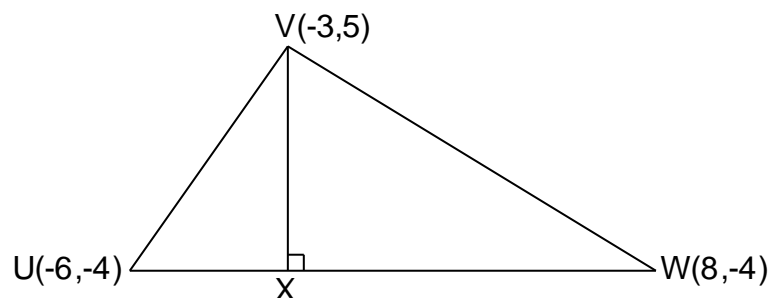


4. A triangle MNP has vertices M(-2,-3), N(3,6) and P(16,11). Find the equation
of the median from N.
5. The vertices of a triangle are S(1,1), T(7,-4) and U(9,-1). Find the equation of
the median TX.

6. A triangle has vertices D(3,1), E(-5,5)
and F(-2,-4).
Find the equation of the altitude FG.



7. The diagram shows triangle UVW.
Find the equation of the altitude VX.

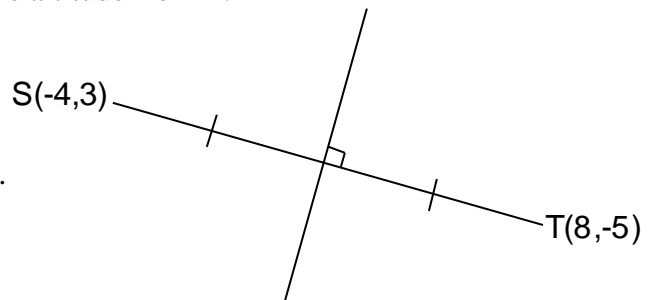


8. A triangle ABC has vertices A(0,2), B (8,-4) and C(4,5).
Find the equation of the altitude drawn from C.

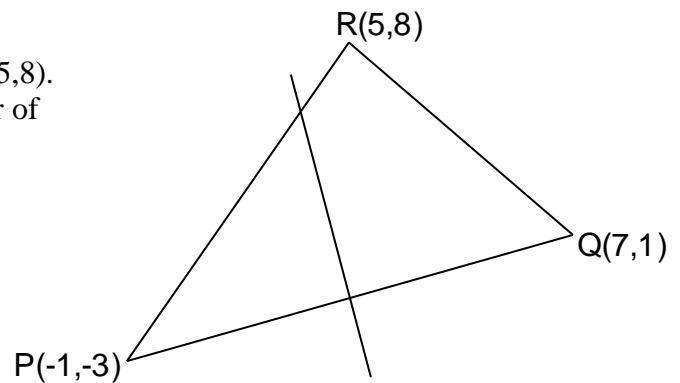
9. The vertices of a triangle are $P(1,3)$, $Q(7,0)$ and $R(5,7)$.
Find the equation of the altitude RS .

10. STU is a triangle where T has coordinates $(3,-1)$ and the line SU has equation $2y = 6x - 1$. Find the equation of the altitude from T .

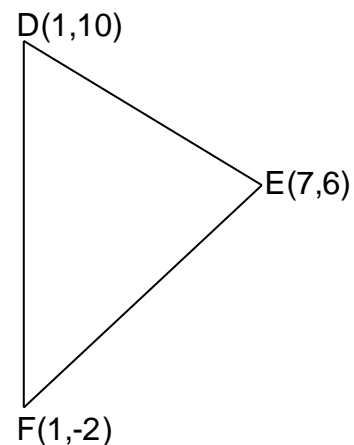
11. Find the equation of the perpendicular bisector of the line joining the points $S(-4,3)$ and $T(8,-5)$.



12. A triangle has vertices $P(-1,-3)$, $Q(7,1)$ and $R(5,8)$.
Find the equation of the perpendicular bisector of the line PQ .



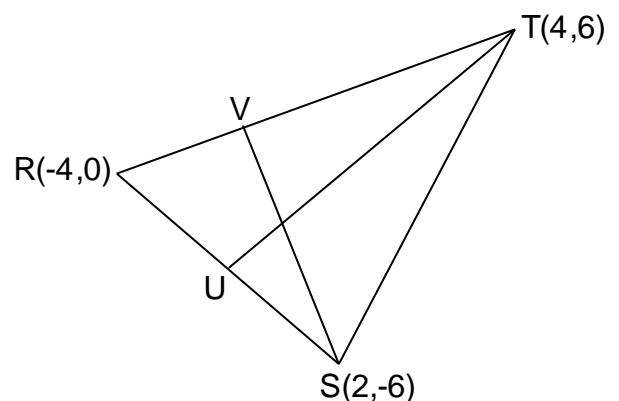
13. The diagram shows triangle DEF .
 D has coordinates $(1,10)$, E is $(7,6)$ and F is $(1,-2)$.
Find the equation of the perpendicular bisector of the line DF .



14. The end points of a line are $A(-6,3)$ and $B(10,3)$. Find the equation of the perpendicular bisector of AB .

15. A triangle has vertices $K(-1,-5)$, $L(3,7)$ and $M(1,11)$. Find the equation of the perpendicular bisector of the line KL .

16. The diagram shows triangle RST .
 R is the point $(-4,0)$, S is $(2,-6)$ and T is $(4,6)$.



- (a) Find the equation of the median TU .
(b) Find the equation of the altitude SV .
(c) Find the equation of the perpendicular bisector of ST .