

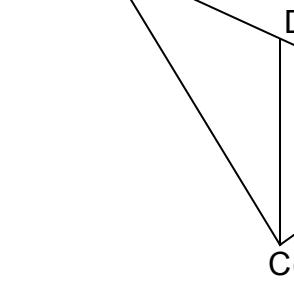
Equation of a Line

B(-5,9)

1. The diagram shows triangle ABC.

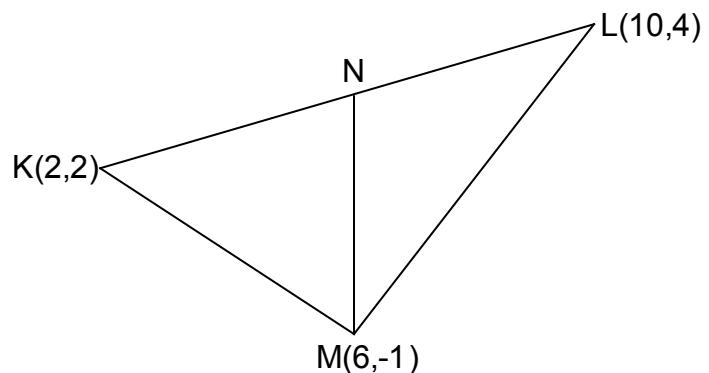
A has coordinates $(3,5)$, B is $(-5,9)$ and C is $(1,-1)$.

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.



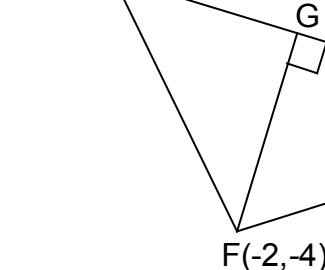
4. A triangle MNP has vertices $M(-2,-3)$, $N(3,6)$ and $P(16,11)$. Find the equation of the median from N.

5. The vertices of a triangle are $S(1,1)$, $T(7,-4)$ and $U(9,-1)$. Find the equation of the median TX.

E(-5,5)

6. A triangle has vertices $D(3,1)$, $E(-5,5)$ and $F(-2,-4)$.

Find the equation of the altitude FG.

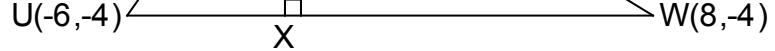


V(-3,5)

7. The diagram shows triangle UVW.

Find the equation of the altitude VX.

U(-6,-4)



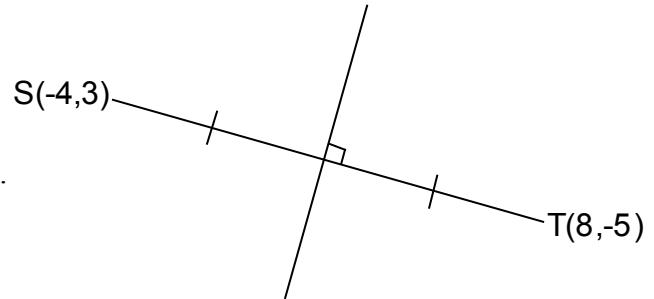
8. A triangle ABC has vertices $A(0,2)$, $B (8,-4)$ and $C(4,5)$.

Find the equation of the altitude drawn from C.

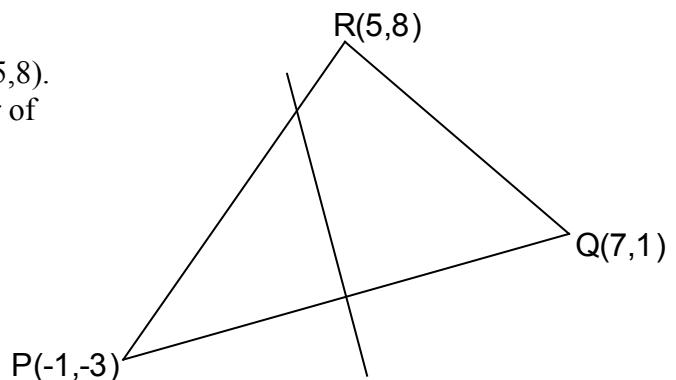
9. The vertices of a triangle are P(1,3), Q(7,0) and R(5,7).
 Find the equation of the altitude RS.

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.

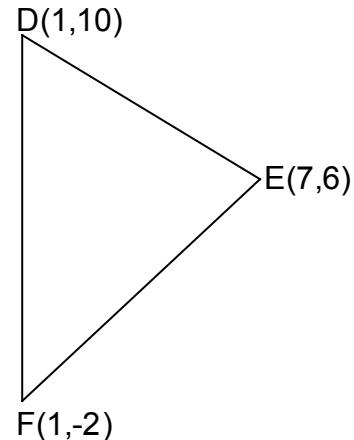
11. Find the equation of the perpendicular bisector of the line joining the points S(-4,3) and T(8,-5).



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.

