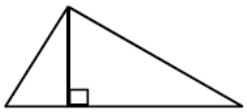
Name:_____ Date:_____ Period:_____

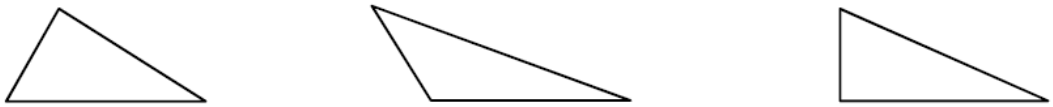
ALTITUDES & ORTHOCENTER

Altitude

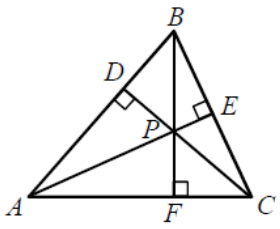


A segment joining a _____ to the opposite side so that it is _____ to that side.

Altitudes can be inside a triangle, outside a triangle, or a side of the triangle



Orthocenter



- The three _____ of a triangle intersect at a point called the **orthocenter.**

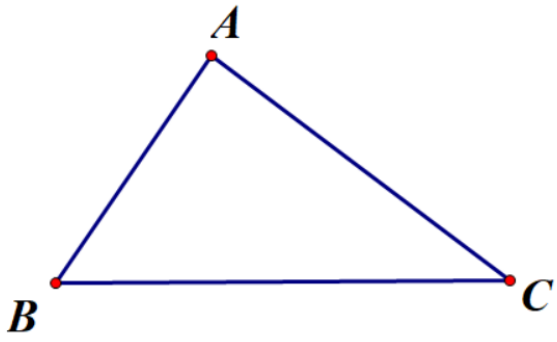
Use the diagram to the left to answer the following questions:

1) List the altitudes: _____

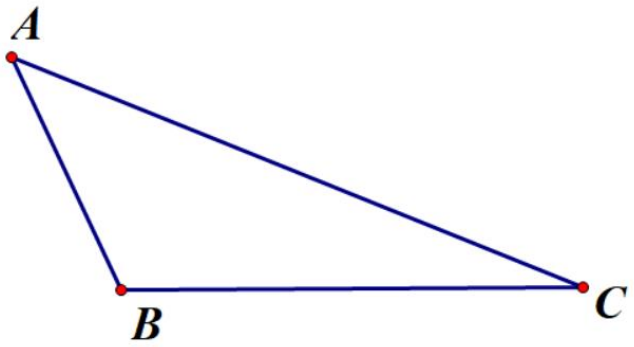
2) Name the orthocenter: _____

In each triangle shown, construct the altitude **from A**.

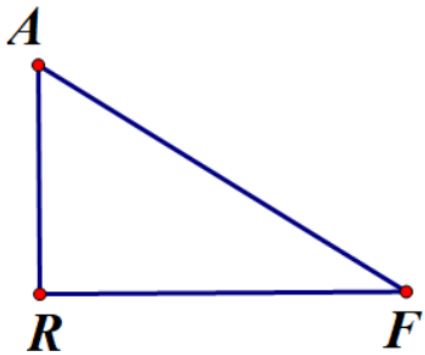
1)



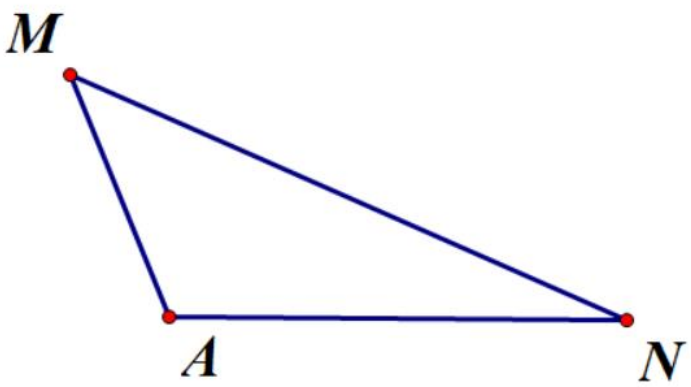
2)



3)

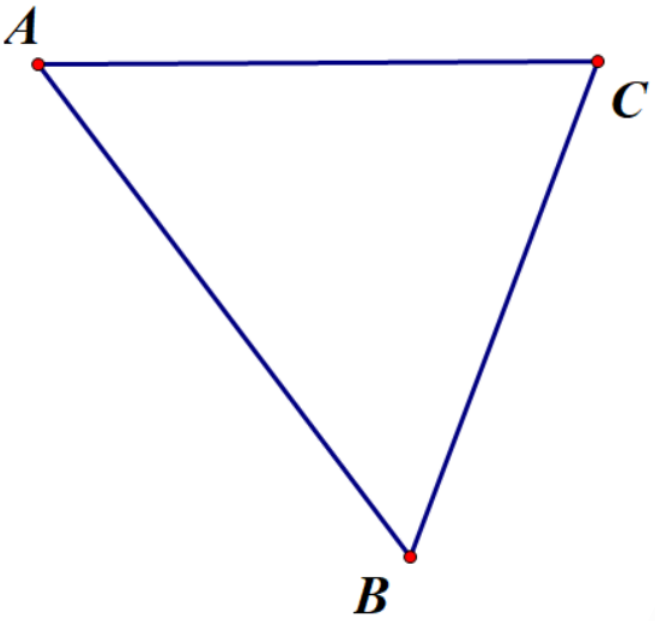


4)

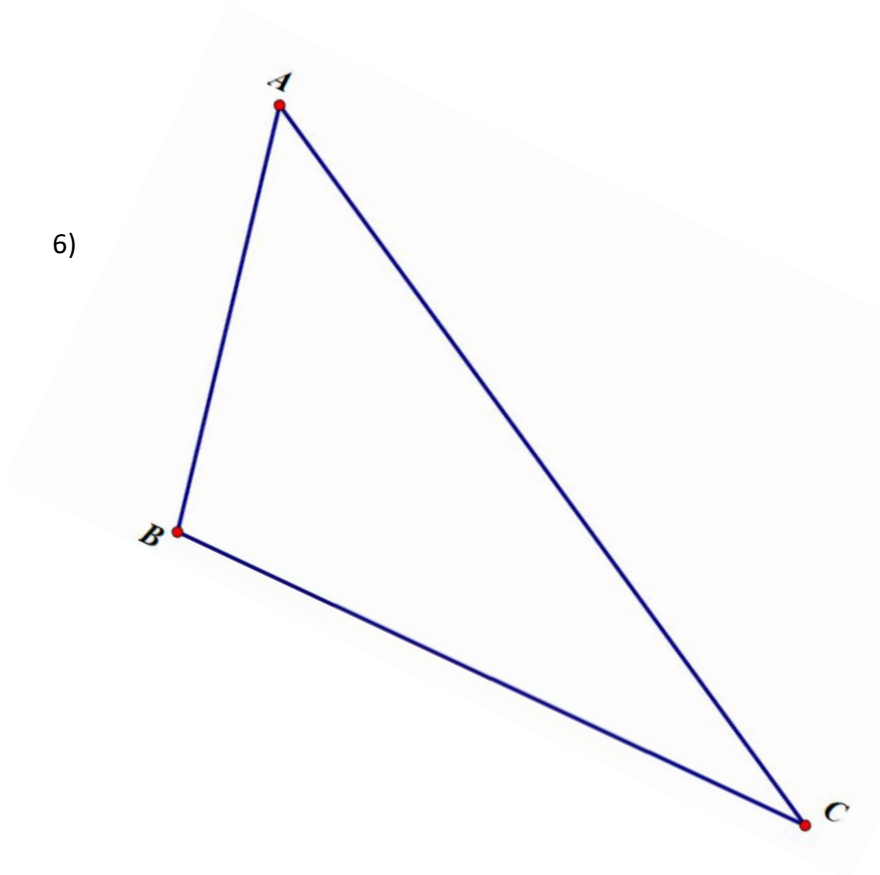


Construct the orthocenter of each triangle shown.

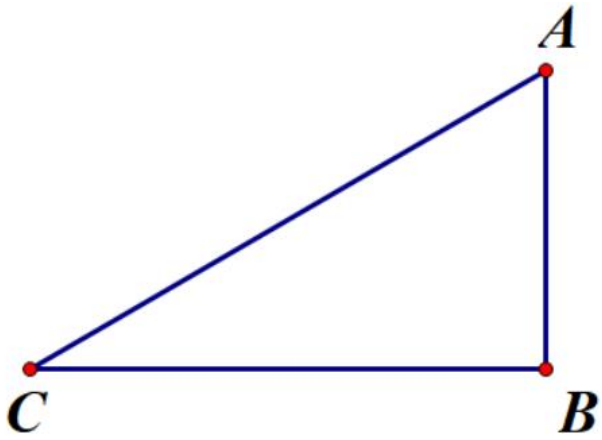
5)



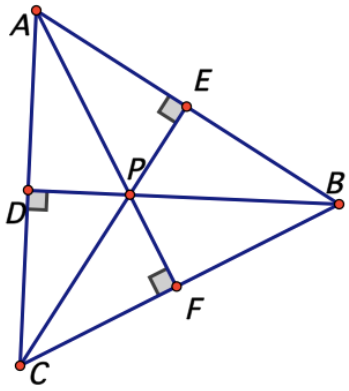
6)



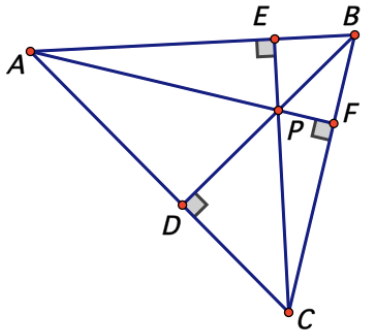
7)



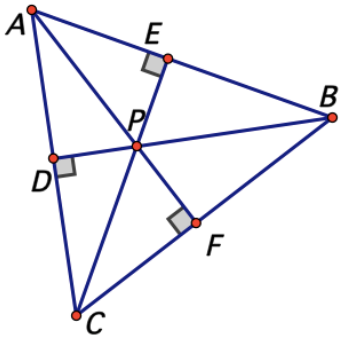
8. P is the orthocenter of ΔABC. AF = 4cm, CF = 3cm
Find AC.



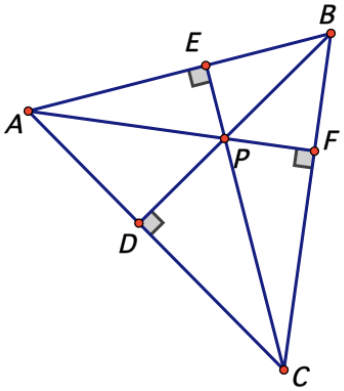
9. P is the orthocenter of ΔABC.
BD = 12 ft.
BC = 13ft.
Find DC.



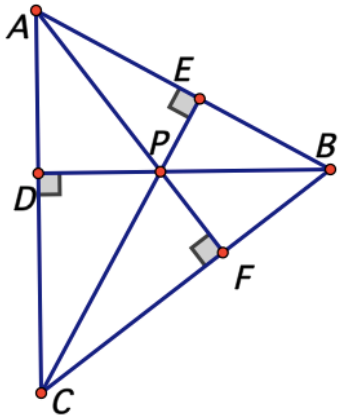
10. P is the orthocenter of ΔABC.
CP = 25 cm
PF = 7cm
Find CF.



11. P is the point of concurrency for the altitudes of ΔABC.
BP = 61mm, PF = 11mm.
Find BF.



12. P is the point of concurrency for the altitudes of ΔABC.
AD = 12 in. DP = 16in. Find AP.



13. P is the point of concurrency for the altitudes of ΔABC.
AF = 48 meters, AC = 50 meters. Find CF.