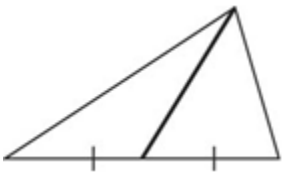
Name_____ Geometry Ch. 5 Lines and Points in Triangles

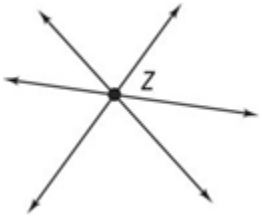
A) Concurrent Lines	B) Point of Concurrency	C) Altitude	D) Angle Bisector	E) Median
F) Perpendicular Bisector	G) Centroid	H) Circumcenter	I) Incenter	J) Orthocenter

Use the word bank above to choose the concept that best represents each line, segment or indicated point.

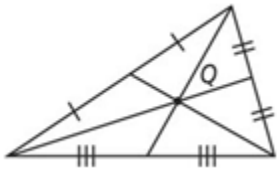
1. _____



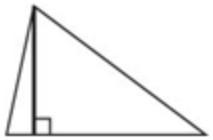
2. Point Z _____



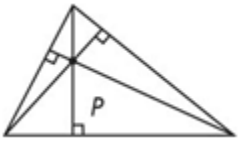
3. Point Q _____



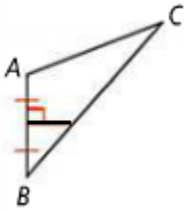
4._____



5. Point P_____

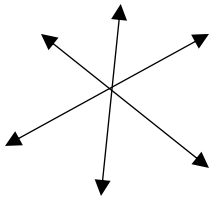


6. _____

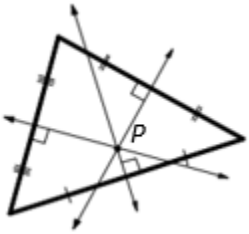


7. Point W_____

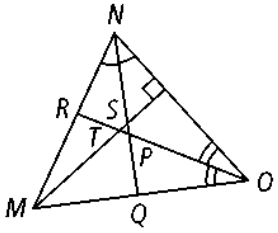
8. _____



9. Point P _____



10. $\overline{NQ}$ _____, $\overline{MS}$ _____, Point P _____



Circle the letter with the name of the correct point of concurrency.

11. The three altitudes of a triangle intersect at the _____.

(a) circumcenter (b) incenter (c) centroid (d) orthocenter

12. The three medians of a triangle intersect at the _____.

(a) circumcenter (b) incenter (c) centroid (d) orthocenter

13. The three perpendicular bisectors of a triangle intersect at the _____.

(a) circumcenter (b) incenter (c) centroid (d) orthocenter

14. The three angle bisectors of a triangle intersect at the _____.

(a) circumcenter (b) incenter (c) centroid (d) orthocenter

15. It divides each median into two sections at a 2:1 ratio.

(a) circumcenter (b) incenter (c) centroid (d) orthocenter

16. It is equidistant from the three vertices of the triangle.

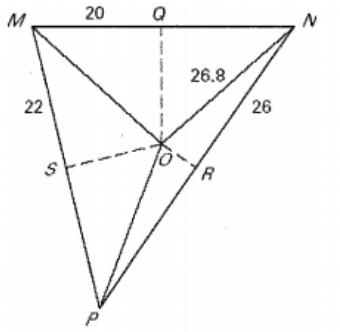
(a) circumcenter (b) incenter (c) centroid (d) orthocenter

17. It is equidistant from the three sides of the triangle.

(a) circumcenter (b) incenter (c) centroid (d) orthocenter

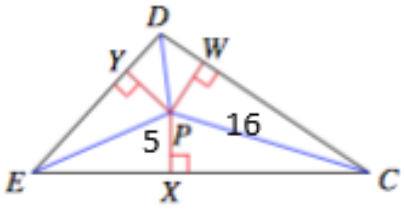
18. Point O is the Circumcenter of ΔMNP.

OP = _____ and *SP* = _____



19. Point *P* is the incenter of ΔCED

PY = _____



***Point S* is the *centroid* of Δ*RTW, RS* = 4, *VW* = 6, and *TV*= 9. Find the length of each segment.**

20. RV = _____

21. SU = _____

22. RU = _____

23. RW = _____

24. TS = _____

25. SV = _____