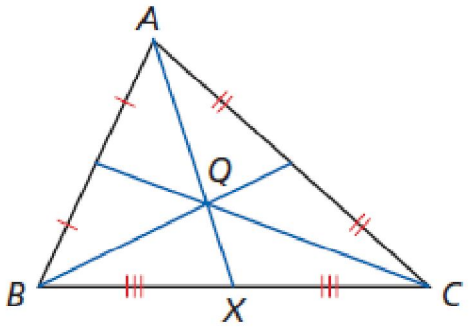
Name: _____ **Class:** _____ **Date:** _____ **ID: A**

Chapter 5 Quiz

Multiple Choice
Identify the choice that best completes the statement or answers the question.

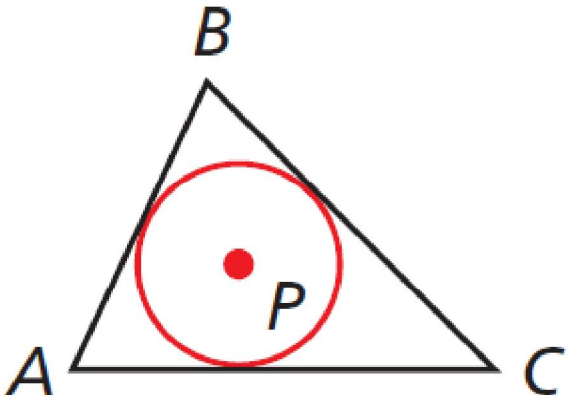
1. In a triangle, a segment connecting the midpoints of two sides of the triangle is called a _____.
   a. shortcut
   b. midsegment
   c. centroid
   d. vertex

2. Point Q represents which point of concurrency?



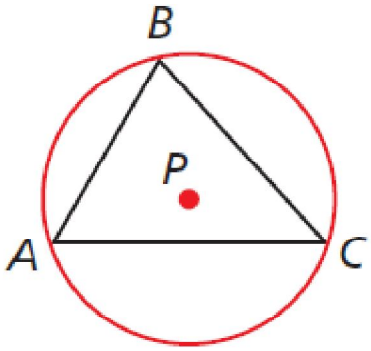
   a. centroid
   b. incenter
   c. orthocenter
   d. circumcenter

3. Point P represents which point of concurrency?



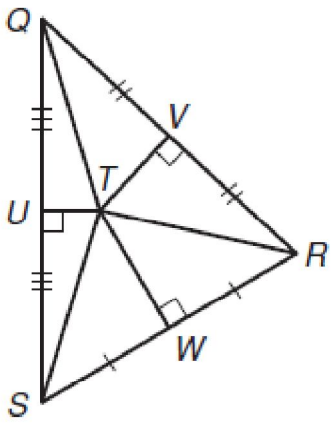
   a. centroid
   b. incenter
   c. orthocenter
   d. circumcenter

4. Point P represents which point of concurrency?



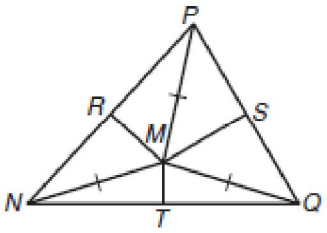
a. centroid
b. incenter
c. orthocenter
d. circumcenter

5. Point T represents which point of concurrency?



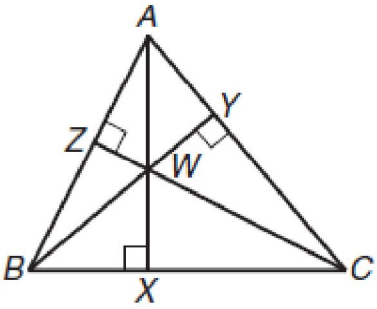
a. centroid
b. incenter
c. orthocenter
d. circumcenter

6. Point M represents which point of concurrency?



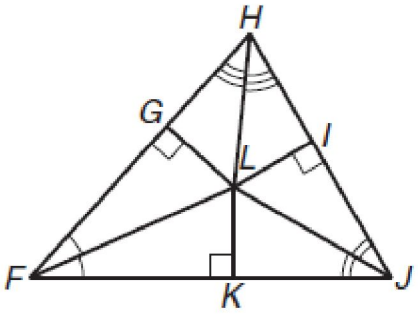
a. centroid
b. incenter
c. orthocenter
d. circumcenter

7. Point M represents which point of concurrency?



a. centroid
b. incenter
c. orthocenter
d. circumcenter

8. Point L represents which point of concurrency?



a. centroid
b. incenter
c. orthocenter
d. circumcenter

9. Which point of concurreny is the intersection of the medians of the triangle?
   a. centroid
   b. incenter
   c. orthocenter
   d. circumcenter

10. Which point of concurreny is the intersection of the altitudes of the triangle?
   a. centroid
   b. incenter
   c. orthocenter
   d. circumcenter

11. Which point of concurreny is the intersection of the angle bisectors of the triangle?
   a. centroid
   b. incenter
   c. orthocenter
   d. circumcenter

12. Which point of concurreny is the intersection of the perpendicular bisectors of the triangle?
   a. centroid
   b. incenter
   c. orthocenter
   d. circumcenter

13. Which point of concurreny is equidistant from the three sides of a triangle?
   a. centroid
   b. incenter
   c. orthocenter
   d. circumcenter

14. Which point of concurreny is equidistant from the three verticies of a triangle?
   a. centroid
   b. incenter
   c. orthocenter
   d. circumcenter

15. Which point of concurreny is the center of gravity of a triangle?
   a. centroid
   b. incenter
   c. orthocenter
   d. circumcenter

16. The medians of a triangle are concurrent. Their common point is the ____.
   a. centroid
   b. incenter
   c. orthocenter
   d. circumcenter

17. The angle bisectors of a triangle are concurrent. Their common point is the ____.
   a. centroid
   b. incenter
   c. orthocenter
   d. circumcenter

18. The perpendicular bisectors of a triangle are concurrent. Their common point is the ____.
   a. centroid
   b. incenter
   c. orthocenter
   d. circumcenter

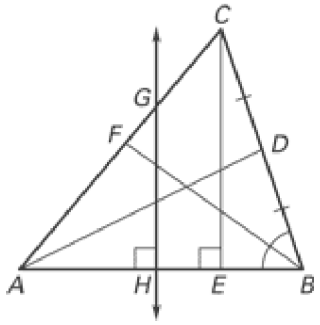
19. The altitudes of a triangle are concurrent. Their common point is the ____.
   a. centroid
   b. incenter
   c. orthocenter
   d. circumcenter

20. The centroid is _____ in the triangle.
   a. always
   b. sometimes
   c. never

21. The incenter is _____ in the triangle.
   a. always
   b. sometimes
   c. never

22. The circumcenter is _____ in the triangle.
   a. always
   b. sometimes
   c. never

Use the figure.



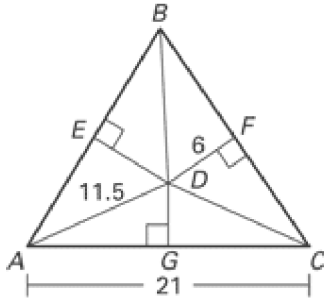
23. Identify a median of ΔABC.
    a. $\overline{BF}$
    b. $\overleftrightarrow{GH}$
    c. $\overline{AD}$
    d. $\overline{CE}$
    e. none of these

24. Identify an altitude of ΔABC.
    a. $\overline{CE}$
    b. $\overleftrightarrow{GH}$
    c. $\overline{BF}$
    d. $\overline{AD}$
    e. $\overline{CB}$

25. In ΔABC, if $m\angle ABF = 39°$ and $\overline{BF}$ is an angle bisector, find $m\angle BCE$.
    a. 90°
    b. 45°
    c. 39°
    d. 51°
    e. 12°

Short Answer

Use the diagram to indicate the measure.



26. The perpendicular bisectors of ΔABC meet at point D. Find BD.

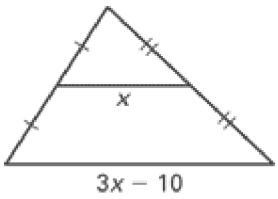
27. The perpendicular bisectors of ΔABC meet at point D. Find DC.

28. The perpendicular bisectors of ΔABC meet at point D. Find BD.

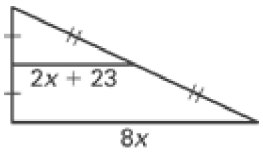
29. The perpendicular bisectors of $\triangle ABC$ meet at point D. Find DC.

Find the value of x.

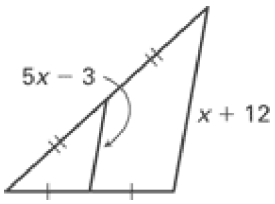
30.



31.

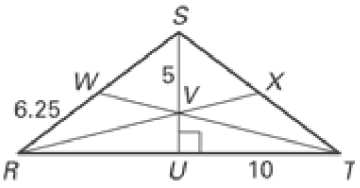


32.



Use the diagram and the given information.

***V* is the centroid of** ΔRST, $\overline{SU} \perp \overline{RT}$, $UT = 10$, $RW = 6.25$, $SV = 5$, and $RS = TS$.



33. Find *ST*.

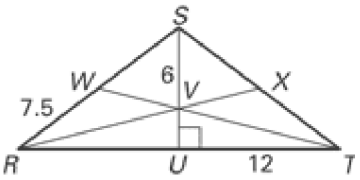
34. Find *SU*.

35. Find *UV*.

36. Find the perimeter of ΔRST.

Use the diagram and the given information.

***V* is the centroid of**
ΔRST, $\overline{SU} \perp \overline{RT}$, $UT = 12$, $RW = 7.5$, $SV = 6$.



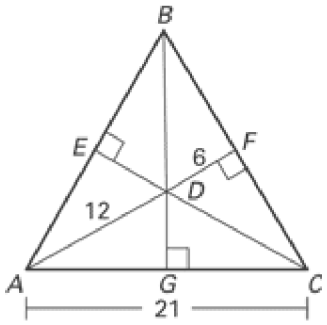
37. Find *ST*.

38. Find *UV*.

39. Find the perimeter of ΔRST.

40. Find *SU*.

Use the diagram to indicate the measure.



41. The perpendicular bisectors of ΔABC meet at point *D*. Find *BD*.

42. The perpendicular bisectors of $\triangle ABC$ meet at point *D*. Find *DC*.

43. Find the perimeter of ΔAMC.

Chapter 5 Quiz
Answer Section

MULTIPLE CHOICE

1. B
2. A
3. B
4. D
5. D
6. D
7. C
8. B
9. A
10. C
11. B
12. D
13. B
14. D
15. A
16. A
17. B
18. D
19. C
20. A
21. A
22. B
23. C
24. A
25. E

SHORT ANSWER

26. 11.5
27. 11.5
28. 13.5
29. 13.5
30. 10
31. 11.5
32. 2
33. 12.5
34. 7.5
35. 2.5

36. 45
37. 15
38. 3
39. 54
40. 9
41. 12
42. 12
43. 57.5