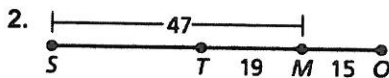


Post Course Test

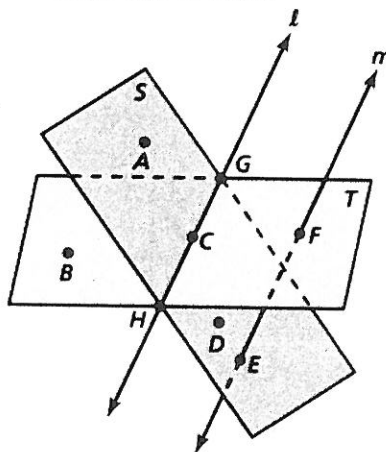
Find the length of \overline{ST} .



- $J(-3, 7)$ and $K(4, -2)$ are endpoints of a line segment. Find the coordinates of the midpoint M . Find the distance between the endpoints of \overline{JK} .
- The midpoint of JK is $M(2, 5)$. One endpoint is $J(-4, 2)$. Find the coordinates of endpoint K . Find the distance between the endpoints of \overline{JK} .

Use the diagram to decide whether the statement is true or false.

- Points $G, C,$ and H are collinear.
- Plane S and plane T intersect at line m .
- Points $A, B,$ and C lie on plane T .
- \overline{CG} and \overline{FE} are opposite rays.
- Point C lies on plane S and plane T .
- Plane S is perpendicular to plane T .

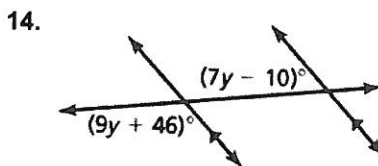
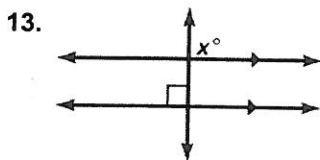


Solve the equation.

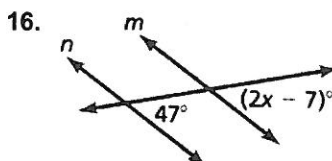
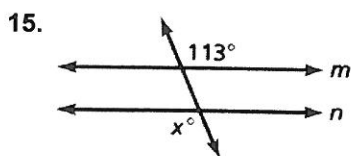
11. $9x - 16 = 7x + 12$

12. $5(3x + 2) = -6x - 11$

Find the value of x or y . State which theorems or postulates you used.



Find the value of x that makes $m \parallel n$.



Write an equation of the line that passes through the given point and is (a) parallel to and (b) perpendicular to the given line.

17. $(-2, -1), y = -3x + 2$

18. $(-3, 1), x = 0$

Answers

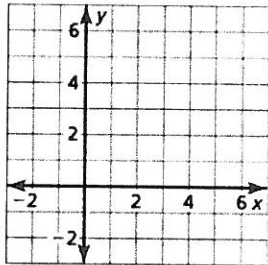
- _____
- _____
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- a. _____
b. _____
- a. _____
b. _____

Post Course

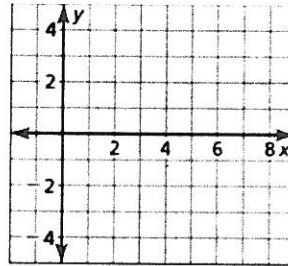
Post Course Test (continued)

Graph triangle $\triangle MEG$ with vertices $M(1, 1)$, $E(5, 3)$, and $G(3, 5)$ and its image after the translation.

19. $(x, y) \rightarrow (x - 1, y - 2)$

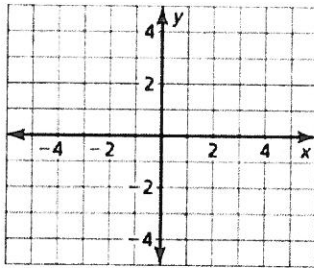


20. $(x, y) \rightarrow (x + 3, y - 6)$

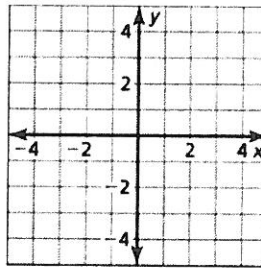


Graph the polygon with the given vertices and its image after a rotation of the given number of degrees about the origin.

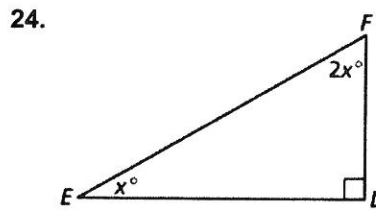
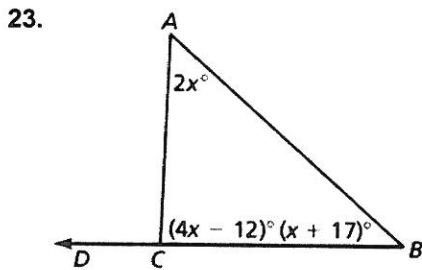
21. $M(-4, 4)$, $L(-5, 1)$, $K(-2, 2)$; 180°



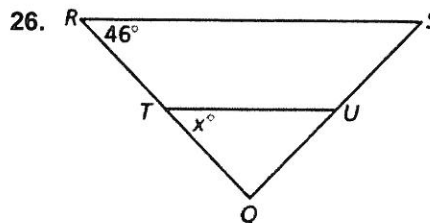
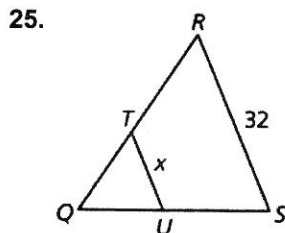
22. $M(0, 0)$, $E(-2, -2)$, $T(-1, 4)$, $S(2, -3)$; 270°



Find the measure of each angle.



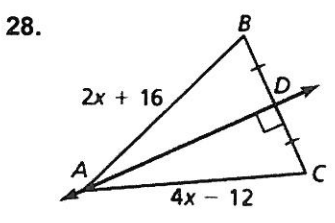
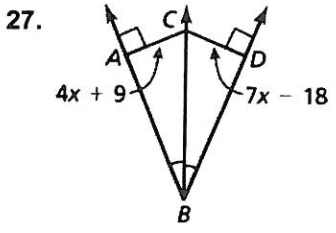
\overline{TU} is a midsegment of $\triangle QRS$. Find the value of x .



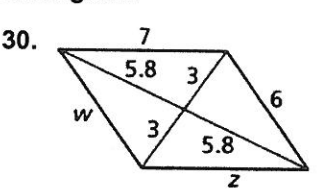
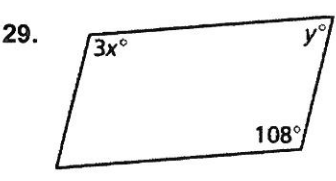
- Answers**
19. See left.
20. See left.
21. See left.
22. See left.
23. _____
24. _____
25. _____
26. _____

Post Course **Post Course Test** (continued)

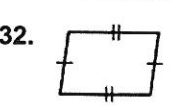
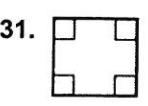
Find AC. Identify the theorem you used.



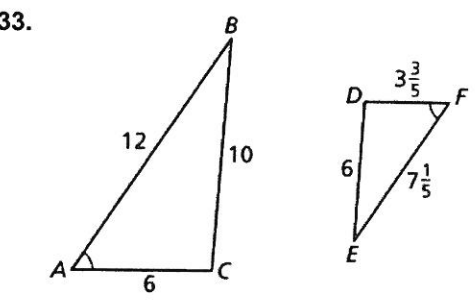
Find the value of each variable in the parallelogram.



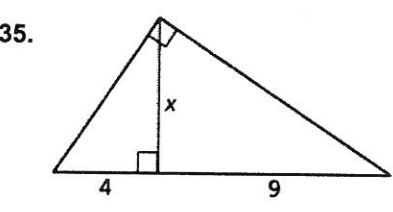
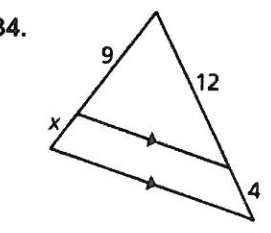
Give the most specific name for the quadrilateral. Explain your reasoning.



Determine whether the triangles are similar. If they are, write a similarity statement.



Find the value of the variable



Answers

27. _____

28. _____

29. _____

30. _____

31. _____

32. _____

33. _____

34. _____

35. _____