

Name:

key

Period:

Score: _____ / _____ = _____ % = _____

HW 7-3

Angles of Triangles

Unit 7

Part 1

Use the number of sides to tell what kind of polygon the shape is.

1.



decagon

5.

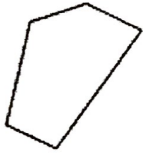


Heptagon

2. 8 sides

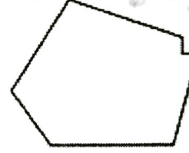
6. 6 sides

3.



pentagon

7.



Hepta gon

4. 10 sides

8. 9 sides

Use the number of sides of the traffic sign to tell what kind of polygon it is.

9.



Quadrilateral

11.



pentagon

10.

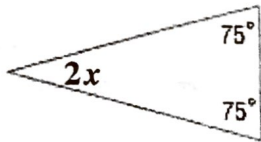


12.



Find the value of x in each triangle with the given angle measures.

13.

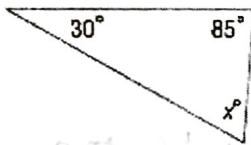


$x = 15$

14.

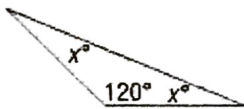


15.

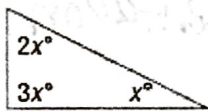


$x = 65$

16.

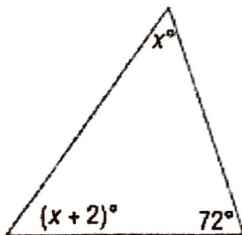


17.



$x = 30$

18.



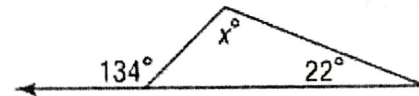
19. The measures of the angles of $\triangle RST$ are in the ratio $2:4:9$. What are the measures of the angles?

$24^\circ, 48^\circ, 108^\circ$

20. The measures of the angles of $\triangle XYZ$ are in the ratio $3:3:6$. What are the measures of the angles?

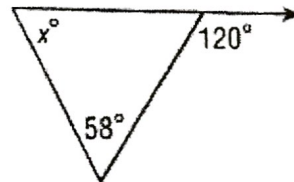
Find the value of x in each triangle.

21.

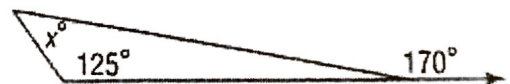


$x = 112^\circ$

22.



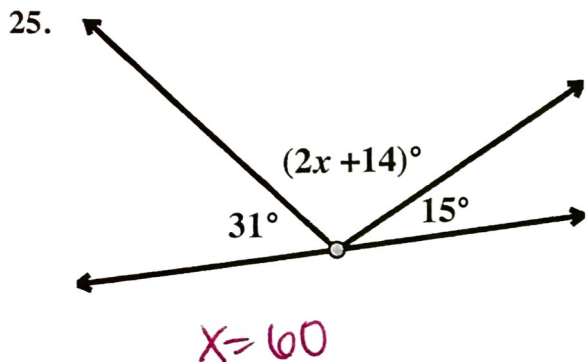
23.



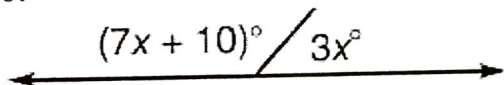
$x = 45$

24. In $\triangle ABC$ the measure of angle A is $2x + 3$, the measure of angle B is $4x + 2$, and the measure of angle C is $2x - 1$. What are the measures of the angles?

Find the value of x .



26.

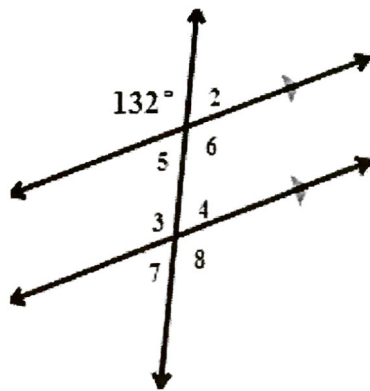


Find the indicated angle measure. (There may NOT be enough information to find the value.) Justify your answer by naming the angle relationship and angles used.

27. $m\angle 2 = 48$

Supplementary
to 132°

28. $m\angle 7$



29. $m\angle 4 = 48$

corresponds with $\angle 2$

OR

vertical to $\angle 7$