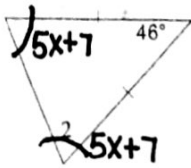


1.3 - Practice

Find the value of  $x$ .

1)  $m\angle 2 = 5x + 7$



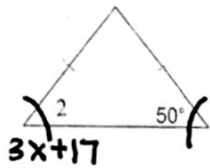
$$\begin{aligned} 5x+7+5x+7+46 &= 180 \\ 10x+60 &= 180 \\ 10x &= 120 \\ \boxed{x=12} \end{aligned}$$

2)  $m\angle 2 = 15x + 2$



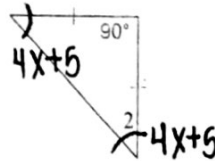
$$\begin{aligned} 15x+2+44+44 &= 180 \\ 15x+90 &= 180 \\ 15x &= 90 \\ \boxed{x=6} \end{aligned}$$

3)  $m\angle 2 = 3x + 17$



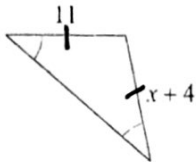
$$\begin{aligned} 3x+17 &= 60 \\ 3x &= 33 \\ \boxed{x=11} \end{aligned}$$

4)  $m\angle 2 = 4x + 5$



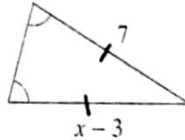
$$\begin{aligned} 4x+5+4x+5+90 &= 180 \\ 8x+100 &= 180 \\ 8x &= 80 \\ \boxed{x=10} \end{aligned}$$

5)



$$\begin{aligned} x+4 &= 11 \\ \boxed{x=7} \end{aligned}$$

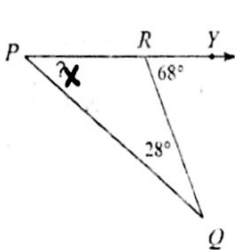
6)



$$\begin{aligned} x-3 &= 7 \\ \boxed{x=10} \end{aligned}$$

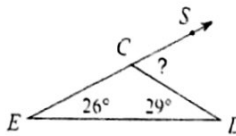
Find the measure of each angle indicated.

7)



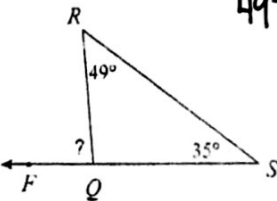
$$\begin{aligned} x+28 &= 68 \\ \boxed{x=40^\circ} \end{aligned}$$

8)



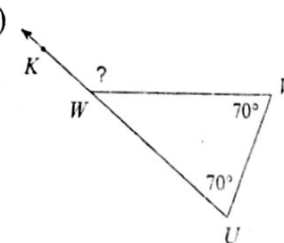
$$26+29 = \boxed{55^\circ}$$

9)



$$49+36 = \boxed{84^\circ}$$

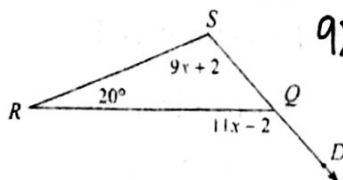
10)



$$70+70 = \boxed{140^\circ}$$

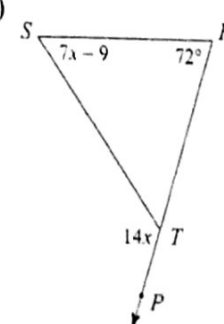
Solve for  $x$ .

11)



$$\begin{aligned} 20+9x+2 &= 11x-2 \\ 9x+22 &= 11x-2 \\ 20 &= 2x \\ \boxed{x=10} \end{aligned}$$

12)



$$\begin{aligned} 7x-9+72 &= 14x \\ 7x+63 &= 14x \\ 63 &= 7x \\ \boxed{x=9} \end{aligned}$$

Worksheet Triangle Sum and Exterior angle Theorem

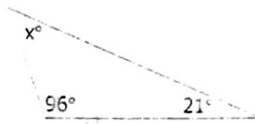
Name \_\_\_\_\_ Period \_\_\_\_\_

I. Find the value of "x".

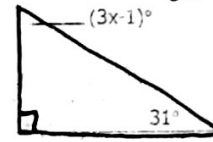
1)  $x = 75^\circ$



2)  $x = 63^\circ$



3)  $x = 20$



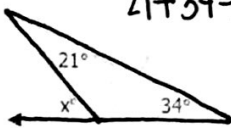
$$3x - 1 + 31 + 90 = 180$$

$$3x + 120 = 180$$

$$3x = 60$$

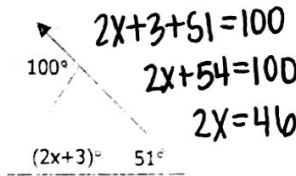
$$x = 20$$

4)  $x = 55^\circ$



$$21 + 34 = 65$$

5)  $x = 23$

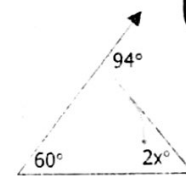


$$2x + 3 + 51 = 100$$

$$2x + 54 = 100$$

$$2x = 46$$

6)  $x = 17$

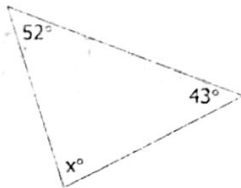


$$60 + 2x = 94$$

$$2x = 34$$

7)  $x = 85^\circ$

$$x + 52 + 43 = 180$$



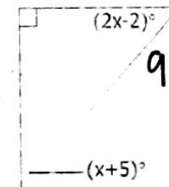
8)  $x = 30$



$$x + 2x + 3x = 180$$

$$6x = 180$$

9)  $x = 29$

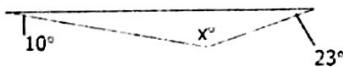


$$90 + x + 5 + 2x - 2 = 180$$

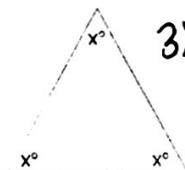
$$3x + 93 = 180$$

$$3x = 87$$

10)  $x = 147^\circ$

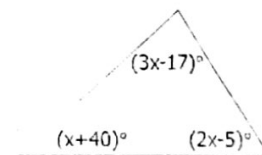


11)  $x = 60$



$$3x = 180$$

12)  $x = 27$



$$3x - 17 + x + 40 + 2x - 5 = 180$$

$$6x + 18 = 180$$

$$6x = 162$$