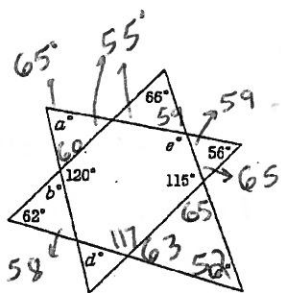


5.1 Triangles

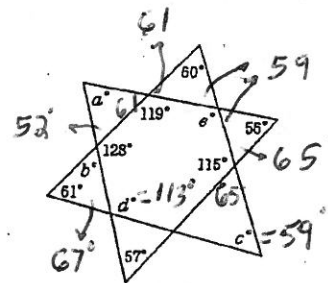
Geometry Worksheet – Triangles

Name _____ Period _____

1) Use the each diagram to determine the values of the following:



a	b	c	d	e
65°	60°	52°	58°	121

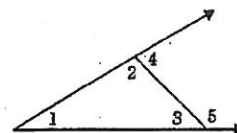


a	b	c	d	e
67°	52°	59°	113°	121°

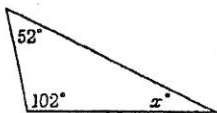
2) Find the $m\angle 2$ given $m\angle 1 = 39$ and $m\angle 5 = 158$.

$$39 + m\angle 2 = 158$$

$$m\angle 2 = 117$$

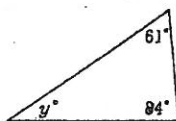


3. Find the value of x in the diagram.



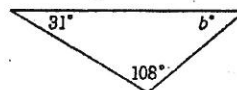
$$x = 26^\circ$$

4. Find the value of y in the diagram.



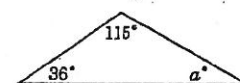
$$y = 35^\circ$$

5. Find the value of b in the diagram.



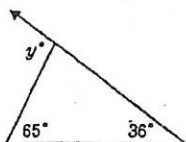
$$b = 41^\circ$$

6. Find the value of a in the diagram.



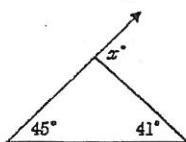
$$a = 29^\circ$$

7. Find the value of y in the diagram.



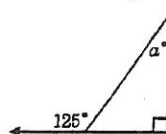
$$y = 101^\circ$$

8. Find the value of x in the diagram.



$$x = 86^\circ$$

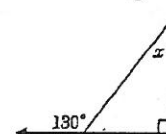
9. Find the value of a in the diagram.



$$125 = a + 90$$

$$a = 35^\circ$$

10. Find the value of x in the diagram.



$$130 = x + 90$$

$$x = 40$$

11) In each of the following, find the measures of the interior angles.

$x + x + 30 + x + 60 = 180$
 $3x = 90$
 $x = 30$

$x + 25 + x - 25 + x = 180$
 $3x = 180$
 $x = 60$

$3x + 2 + 6x + 11 + 5x - 1 = 180$
 $14x + 12 = 180$
 $14x = 168$
 $x = 12$

$2x + 3x - 10 + 110 - x = 180$
 $4x + 100 = 180$
 $4x = 80$
 $x = 20$

12) In each of the following, find the measure of each labeled angle.

$\angle 1 = 30$ $\angle 6 = 55$ $\angle 4 = 35$
 $\angle 2 = 60$ $\angle 8 = 125$ $\angle 5 = 90$
 $\angle 3 = 50$ $\angle 7 = 55$ $\angle 9 = 35$

$\angle 1 = 60$ $\angle 5 = 130$
 $\angle 2 = 130$ $\angle 9 = 50$
 $\angle 3 = 20$ $\angle 7 = 70$
 $\angle 4 = 30$ $\angle 8 = 90$
 $\angle 6 = 20$

$\angle 2 = 55$ $\angle 4 = 40$ $\angle 8 = 65$
 $\angle 1 = 75$ $\angle 5 = 140$ $\angle 9 = 115$
 $\angle 3 = 55$ $\angle 6 = 40$ $\angle 7 = 75$

$\angle 1 = 125$ $\angle 3 = 25$
 $\angle 2 = 55$ $\angle 4 = 30$
 $\angle 6 = 130$ $\angle 8 = 25$
 $\angle 7 = 30$ $\angle 9 = 65$
 $\angle 5 = 125$