7.1 Show All Work!!
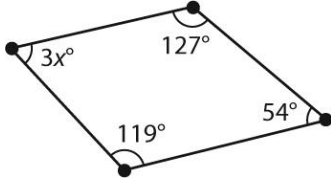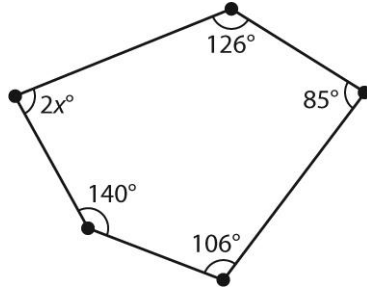
1. The interior angles of a triangle have measures of 55°, 25°, and x°. What is x? _____

2. Find x.
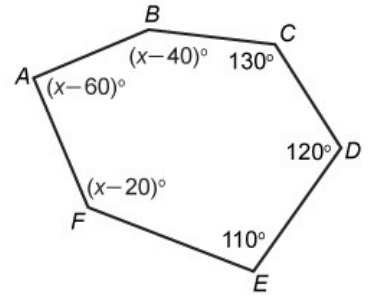
   a.

   b.

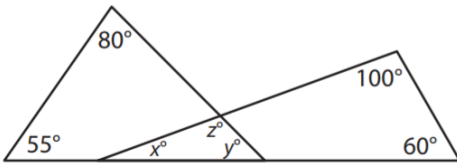   c.

3. Find the number of sides on a polygon with an interior angle sum of 3780°. _____

4. Determine the unknown angle measures a hexagon whose six angles measure
   69°, 108°, 135°, 204°, b° and $2b$°.

5. Determine the measures of angles $x, y,$ and z.

6. Find and explain what this student did incorrectly when solving the following problem.
   What type of polygon would have an interior sum of 1260°?

   $1260 = (n-2)180$ _____

   $7 = n - 2$ _____

   $5 = n$ _____

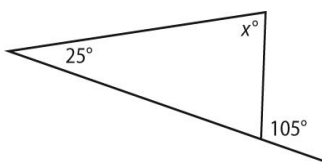   The polygon is pentagon.
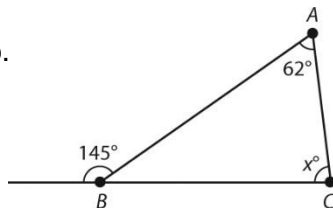
7. Find x.

   a.

   b.
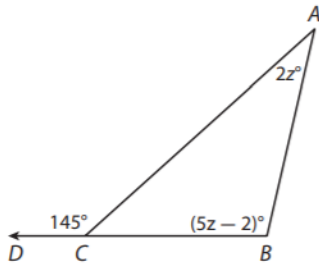

   c.

8.

Find m∠B.

A
2z°
145°   (5z − 2)°
D   C   B

9.

Determine m∠N in △MNP.

N
(3x + 7)°
63°   (5x + 50)°
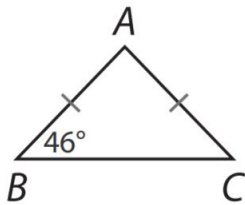M   P   Q

10.
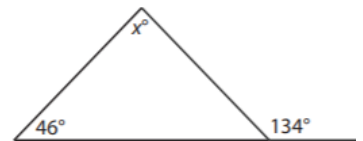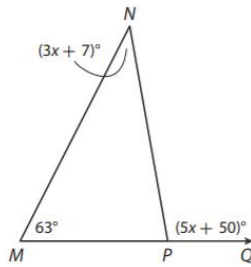
Find m∠PRS.

Q
(x + 2)°
R   P
(3x − 8)°
S
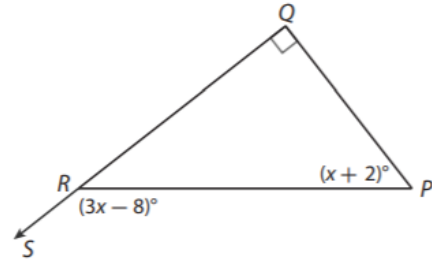
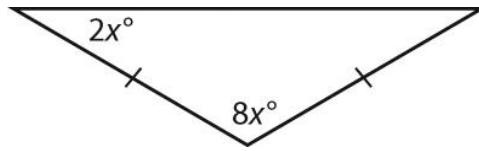## 7.2 Isosceles and Equilateral Triangles **Show all work!!**

11. Find $m\angle A$.

A
46°
B   C

12. Solve for x.

2x°
8x°

13. Solve for x.

3x − 1
2x + 4

14. Find $\overline{RS}$

S
3x − 1.6
R   T
x + 1

15. Find $m\angle E$

D   F
(4x + 1)°   (5x − 4)°
E
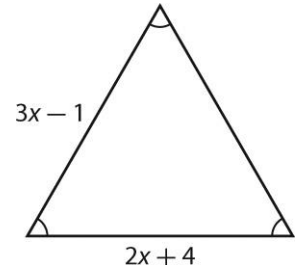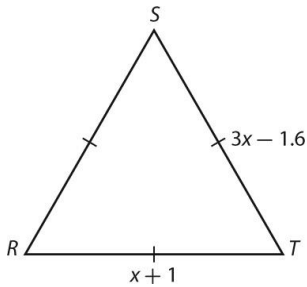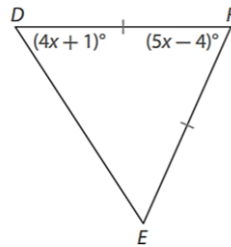
16. Find $m\angle O$

N
7y°   M
(4y − 15)°
O
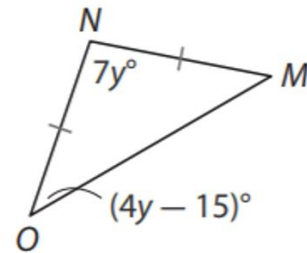
17. Show work on the figure.

Match each angle with its corresponding measure, given $m\angle 1 = 130°$ and $m\angle 7 = 70°$. Indicate a match by writing the letter for the angle on the line in front of the corresponding angle measure.

A. m∠2   _____ 50°

B. m∠3   _____ 60°

C. m∠4   _____ 70°

D. m∠5   _____ 110°

E. m∠6   _____ 120°