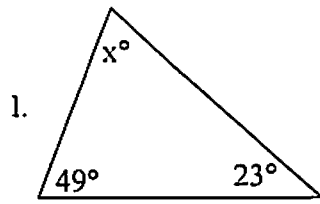


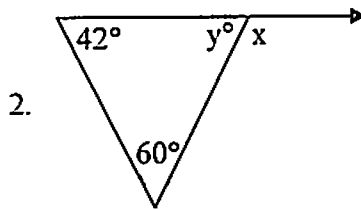
Geometry
Review
2-4 and 2-5 Practice

Name _____
Date _____ Period ____

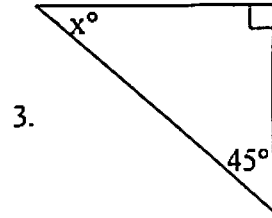
Find the measure of each missing angle.



$x = 108^\circ$



$x = 102^\circ$
 $y = 78^\circ$



$x = 45^\circ$

49
23
72
71
180
72
108

Given two of the angles of a triangle, find the measure of the third angle.

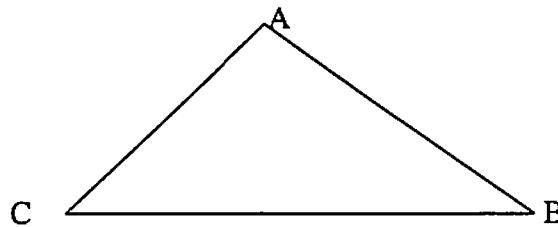
4. $m\angle A = 17^\circ, m\angle B = 91.5^\circ, m\angle C = 63.5^\circ$

$\frac{63.5}{7} = 90.7$

5. $m\angle A = 41.2^\circ, m\angle B = 90^\circ, m\angle C = 48.8^\circ$

Find the indicated values. Label the triangle and show all work!

6. $m\angle A = (9x+3)^\circ$
 $m\angle B = 5x^\circ$
 $m\angle C = (4x+5)^\circ$



$x = \frac{80}{9} = 9.556$
 $m\angle A = 89$
 $m\angle B = \frac{430}{9} = 47.778$
 $m\angle C = \frac{371}{9} = 41.222$

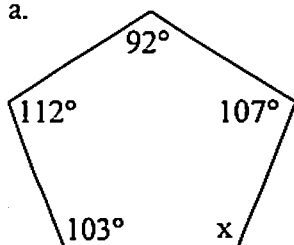
$9x+3+5x+4x+5=180$

$18x+8=180$

$\frac{18x}{18} = \frac{172}{18}$

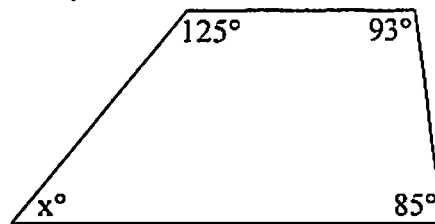
$x = \frac{86}{9}$

7. Find x.



$(5-2)180 = 540$

$540 - 103 - 112 - 92 - 107 = 126$



$2(180) = 360$

$360 - 125 - 93 - 85 = 57$

Polygon Angle Formulas
Sum of degree measures of the interior angles of a polygon: $180(n-2)$
Degree measure of an interior angle of a regular polygon: $\frac{180(n-2)}{n}$
where n is the number of sides of the polygon

8. If the measure of an interior angle of a regular polygon is 140° , how many sides does the polygon have? 9

~~180~~ Exterior = 40°

$$\frac{360}{n} = 40$$

9. If the measure of an exterior angle of a regular polygon is 20° , how many sides does the polygon have? 18

$$\frac{360}{n} = 20$$

10. What is the sum of the measures of the exterior angles of a 9-gon? 360°

11. What is the measure of one exterior angle in a regular 9-gon? 40°

$$\frac{360}{9}$$

12. What is the measure of one interior angle in a regular 9-gon? 140°

$$\frac{360}{9} = 40 \text{ exterior int. } 140$$

13. What is the measure of one exterior angle of a regular pentagon? 72°

$$\frac{360}{5}$$

14. What is the sum of the measures of the interior angles of an octagon? 1080°

$$(8-2)180$$

15. What is the measure of one interior angle of a regular octagon? 135°

$$\frac{360}{8} = 45 \text{ ext}$$

16. What is the measure of one exterior angle of a regular octagon? 45°

$$\frac{360}{8} = 45 \text{ ext } 135$$

17. What is the sum of the measures of the exterior angles of an octagon? 360°

$$\frac{360}{8}$$

$$360^\circ$$