

## Worksheet #1 Chapter 8

Name \_\_\_\_\_

**No rounding. All numerical answers must be proper fractions, integers, mixed numbers, terminating decimals, or simplified radicals.**

The number of sides of a convex polygon is given. Find the sum of the measures of the interior angles of each polygon.

- 1) 8                      2) 12                      3) 14                      4) 16                      5) p

The sum of the measures of the interior angles of a convex polygon is given. Find the number of sides of each polygon.

- 6)  $7020^\circ$               7)  $1980^\circ$               8)  $6120^\circ$               9)  $1800^\circ$               10)  $3420^\circ$

The number of sides of a regular polygon is given. Find the measure of each interior angle of each polygon.

- 11) 7                      12) 9                      13) 11                      14) 15                      15) 17

Find the exact measure of each exterior angle of the regular polygon.

- 16) pentagon              17) heptagon              18) decagon              19) 18-gon              20) 20-gon

21) Home plate on a baseball field has three right angles and two congruent angles. Find the measure of the two congruent angles.

22) The sum of the measures of seven angles of an octagon is  $1000^\circ$ . Find the measure of the eighth angle.

23) How many sides does a regular polygon have if each exterior angle has a measure of  $15^\circ$ ?

24) How many sides does a regular polygon have if each interior angle has a measure of  $108^\circ$ ?

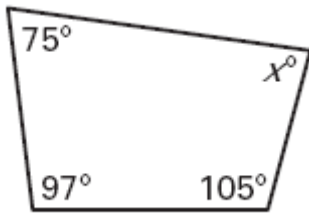
25) Find the number of sides of a polygon if the sum of the measures of its interior angles is twice the sum of the measures of its exterior angle.

26) The measure of each interior angle of a regular polygon is eight times that of an exterior angle. How many sides does the polygon have?

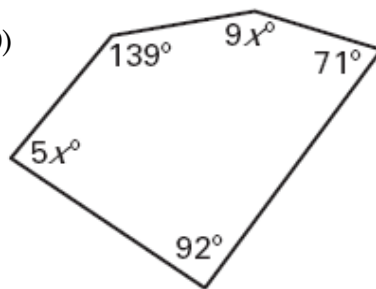
27) In quadrilateral ABCD the measures of  $\angle A$ ,  $\angle B$ ,  $\angle C$ , and  $\angle D$  are the ratio of 1:2:3:4, respectively. Find the measures of the four angles.

Find the value of  $x$ .

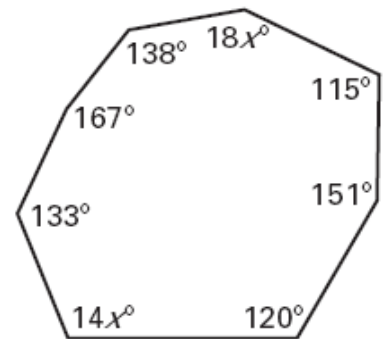
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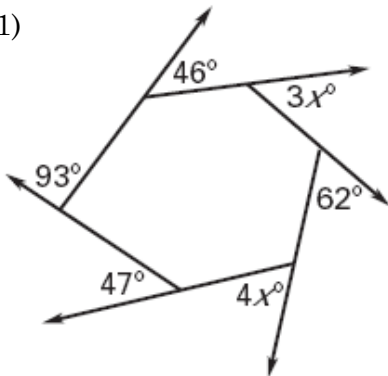
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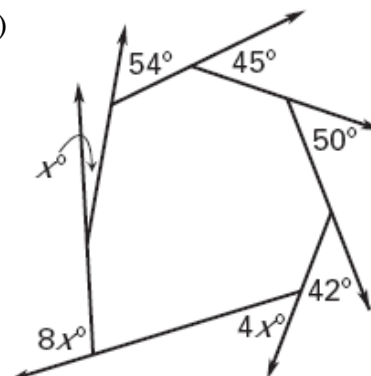
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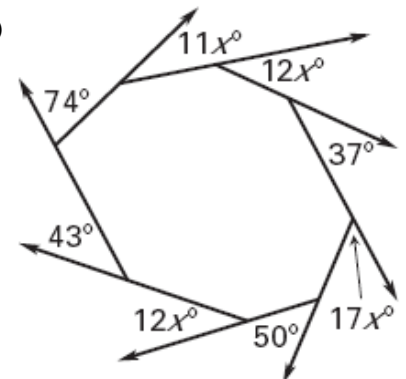
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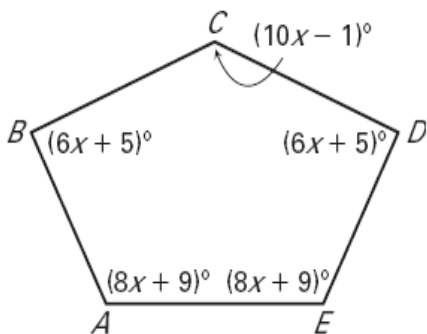
32)



33)



34) **Light Fixture** The side view of a light fixture is shown below. Find the value of  $x$ . Then determine the measure of each angle.



35) **Tent** The front view of a camping tent is shown below. Find the value of  $x$ . Then determine the measure of each angle.

