

First name: _____ Last name: _____

Student ID: _____

Chapter 9 Angles Homework

Basic problems

1. Find the measure of the angle.

<p>1.</p> <p>$\overleftrightarrow{QU} \parallel \overleftrightarrow{DN}$ $m \angle DKJ = \underline{\hspace{2cm}}$ $m \angle QJR = 87^\circ$</p>	<p>2.</p> <p>$\overleftrightarrow{KP} \parallel \overleftrightarrow{CV}$ $m \angle VEF = \underline{\hspace{2cm}}$ $m \angle CEL = 118^\circ$</p>	<p>3.</p> <p>$\overleftrightarrow{BD} \parallel \overleftrightarrow{PF}$ $m \angle HAD = \underline{\hspace{2cm}}$ $m \angle HAB = 88^\circ$</p>
---	--	---

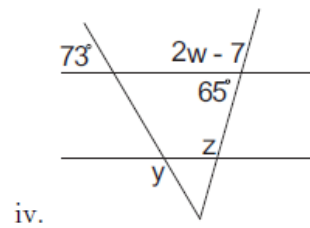
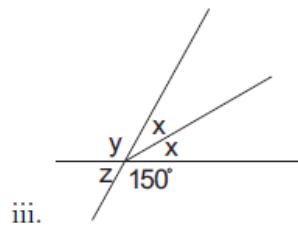
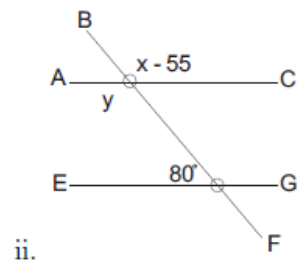
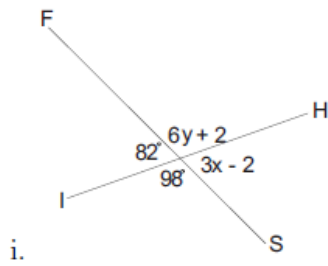
2. Fill in the blank with an angle.

<p>1.</p> <p>$\overleftrightarrow{QL} \parallel \overleftrightarrow{KF}$ $\angle QHM$ and _____ are corresponding angles</p>	<p>2.</p> <p>$\overleftrightarrow{LU} \parallel \overleftrightarrow{AK}$ $\angle LZT$ and _____ are alternate interior angles</p>	<p>3.</p> <p>$\overleftrightarrow{CU} \parallel \overleftrightarrow{KS}$ $\angle CBQ$ and _____ are vertical angles</p>
---	--	--

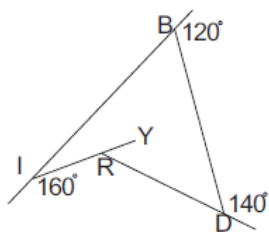
3. Complete.

<p>1.</p> <p>Name a pair of adjacent angles.</p>	<p>2.</p> <p>Name a pair of supplementary angles.</p>	<p>3.</p> <p>Name a pair of supplementary angles.</p>
--	---	---

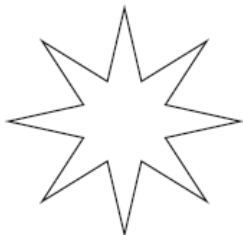
4. Find all the missing values and angles. **Show work!**



5. In the diagram, what is the degree of angle YRD?



6. Find the sum of interior angles of the star.



Word problems

1. If the sum of the interior angles of a polygon equals 2700° , How many degrees are there in each interior angle of given polygon?

2. What is the measure of each interior angle does a polygon have if the sum of its interior angles is 1800° ?

3. What is a polygon called if each interior angle equals 120° ?

4. What is the measure of the interior angles of a regular twelve sided polygon?

5. What is the measure of a central angle if each interior angle equals 60° ?

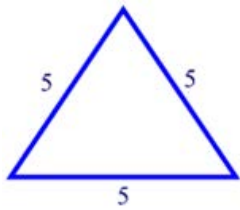
6. If the sum of the interior angles of a polygon equals 4320° , what is the measure of each interior angle of the polygon?

7. How many degrees are there in the each interior angle of a polygon, if the sum of its interior angles is 2520° ?

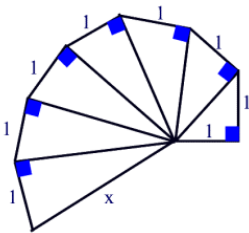
8. What is the measure of each interior angle in a regular seven sided polygon?

9. What is the measure of a central angle of the regular polygon of which each interior angle is 140° ?

10. Using the Pythagorean Theorem, find the area of an equilateral triangle whose side measures 5 units. Find the area to the *nearest tenth* of a square unit.



12. In the following figure, find x .



13. Find the size of each of the angles marked with letters in the diagram below.
Find $\angle a = ?$, $\angle b = ?$ $\angle c = ?$

