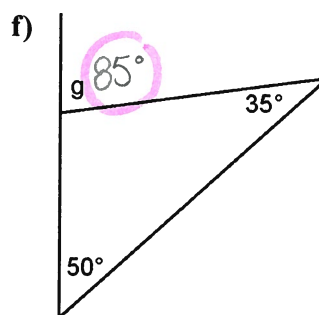
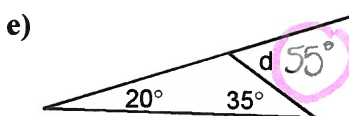
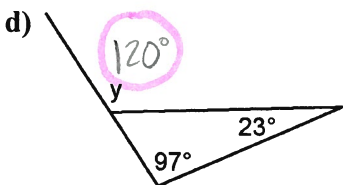
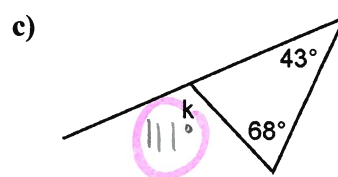
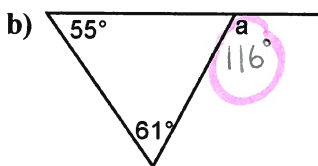
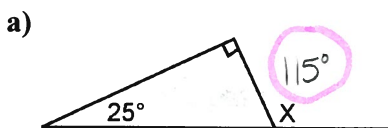


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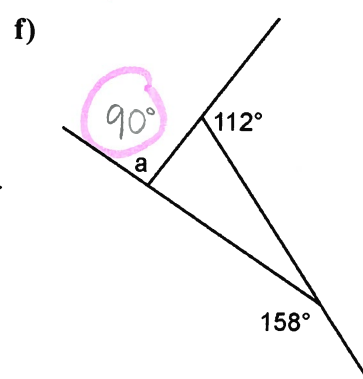
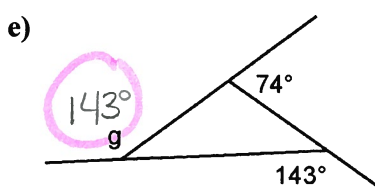
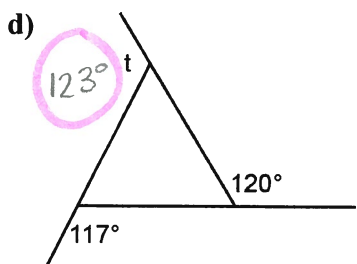
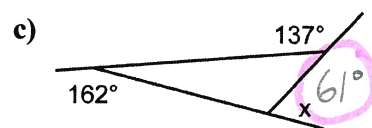
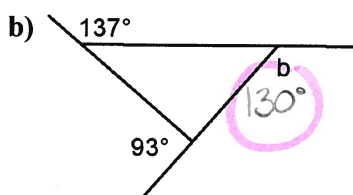
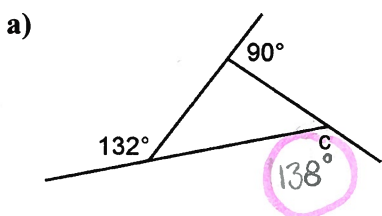
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## Practice: Angle Relationships in Triangles

1. Find the measure of each indicated exterior angle.



2. Find the measure of each indicated exterior angle.



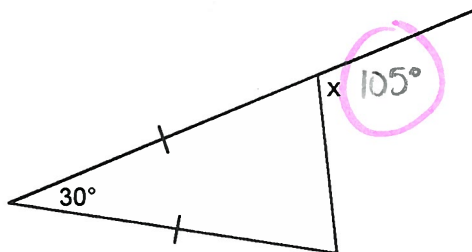
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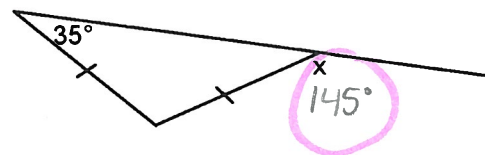
**BLM 7.1.1**  
(page 2)

3. Find the measure of each indicated exterior angle.

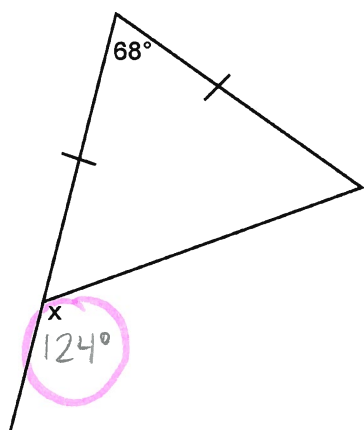
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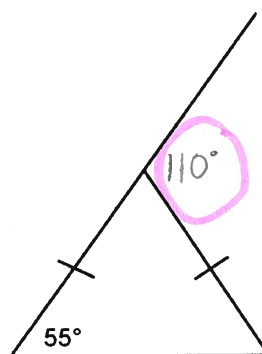
b)



c)

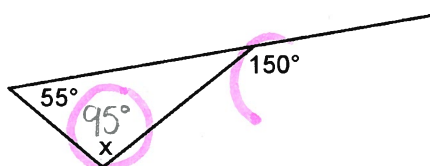


d)

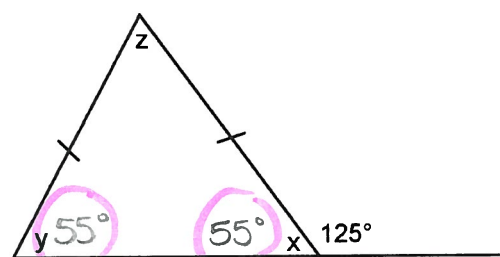


4. Find the measure of each indicated angle.

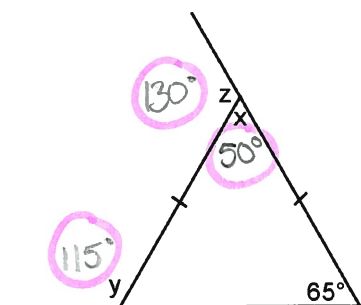
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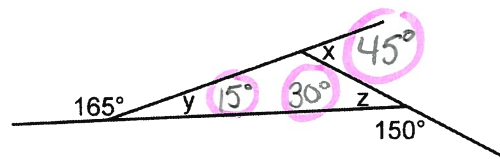
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c)



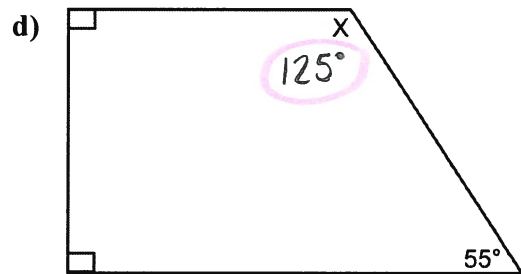
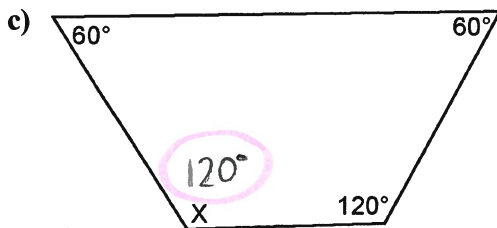
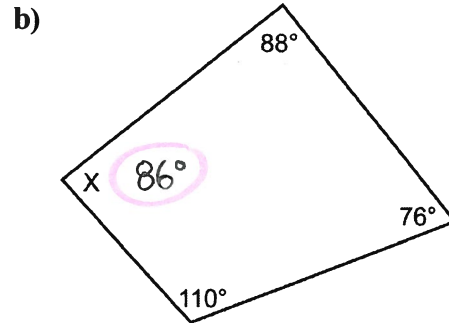
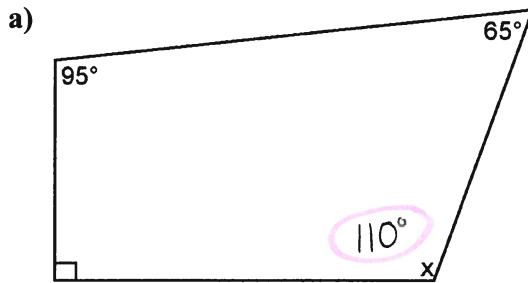
d)



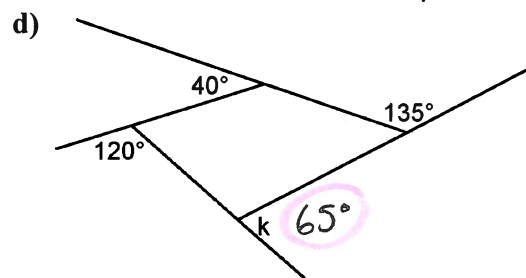
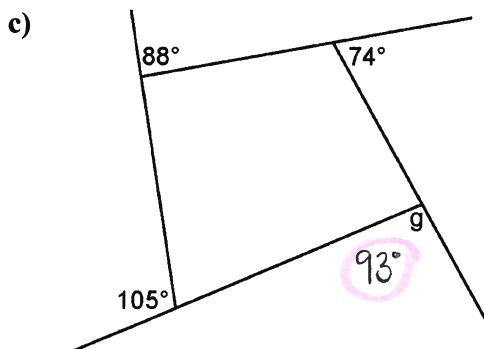
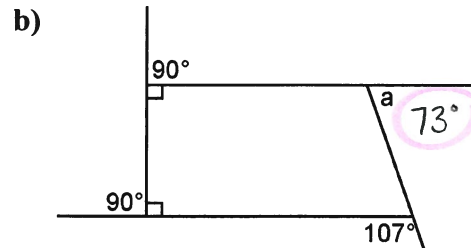
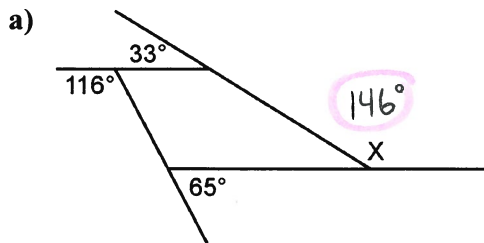
5. One interior angle in an isosceles triangle measures  $42^\circ$ . Find the possible measures for the exterior angles.

## Practice: Angle Relationships in Quadrilaterals

1. Find the measure of each indicated angle.



2. Find the measure of each indicated exterior angle.



Name: \_\_\_\_\_

Date: \_\_\_\_\_

**BLM 7.2.1**  
(page 2)

3. The measures of three interior angles of some quadrilaterals are given. Find the measure of the fourth interior angle for each quadrilateral.

- a)  $110^\circ, 80^\circ, 75^\circ$     b)  $95^\circ, 95^\circ, 150^\circ$     c)  $68^\circ, 29^\circ, 103^\circ$     d)  $132^\circ, 48^\circ, 67^\circ$

$95^\circ$

$20^\circ$

$160^\circ$

$113^\circ$

4. The measures of the exterior angles at three vertices of some quadrilaterals are given. Find the measure of the exterior angle at the fourth vertex.

- a)  $75^\circ, 125^\circ, 35^\circ$     b)  $50^\circ, 145^\circ, 85^\circ$     c)  $76^\circ, 34^\circ, 178^\circ$     d)  $93^\circ, 83^\circ, 121^\circ$

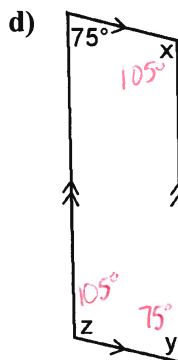
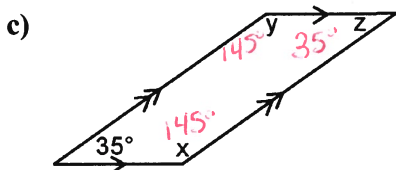
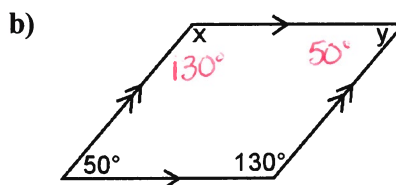
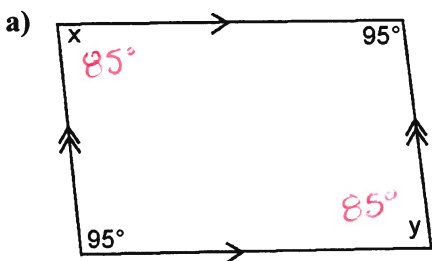
$125^\circ$

$80^\circ$

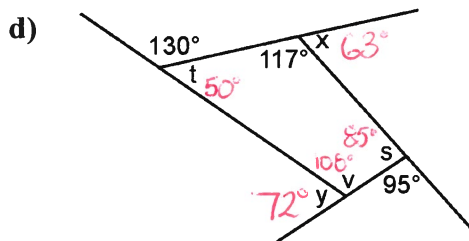
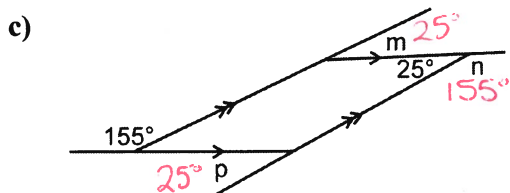
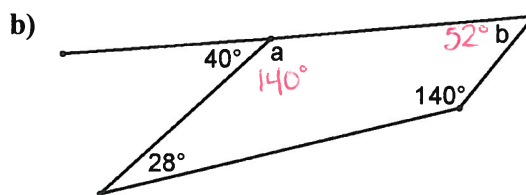
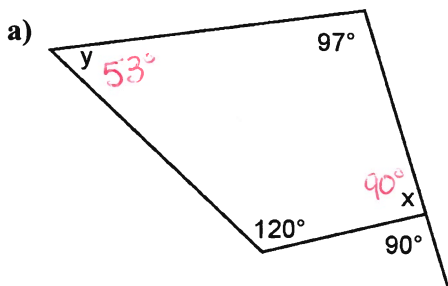
$72^\circ$

$63^\circ$

5. Find the measure of each indicated angle.



6. Find the measure of each indicated angle.



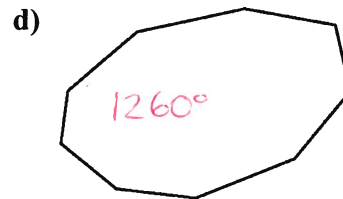
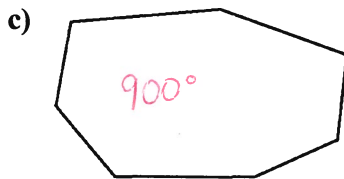
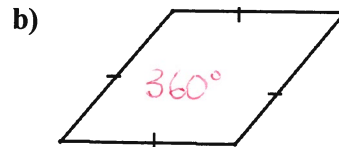
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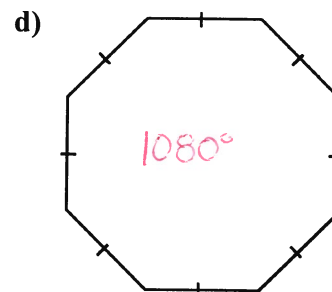
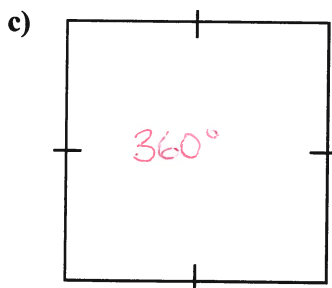
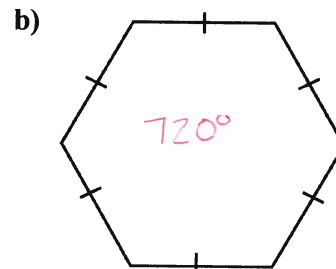
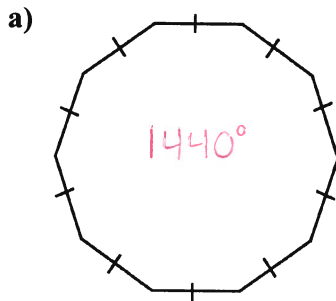
BLM 7.3.1

## Practice: Angle Relationships in Polygons

1. Find the sum of the interior angles of each polygon.



2. Find the sum of the interior angles of each polygon.



3. Find the sum of the interior angles of a polygon with each number of sides.

a) 11 sides  $1620^\circ$    b) 14 sides  $2160^\circ$    c) 18 sides  $2880^\circ$    d) 24 sides  $3960^\circ$

4. Find the measure of each interior angle of a regular polygon with each number of sides.

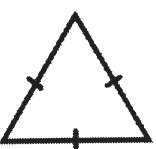
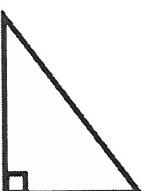





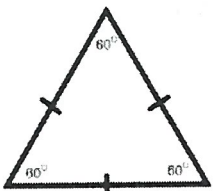
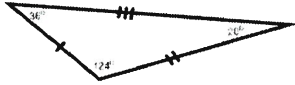
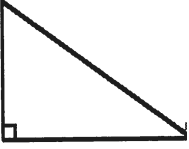






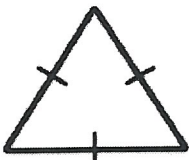







a) 3 sides  $60^\circ$    b) 20 sides  $162^\circ$    c) 9 sides  $140^\circ$    d) 16 sides  $157.5^\circ$

5. Find the number of sides each polygon has given the sum of its interior angles.

a)  $720^\circ$   $6$    b)  $1980^\circ$   $13$    c)  $2340^\circ$   $15$    d)  $4140^\circ$   $25$

# Classifying Triangles

Classify each triangle by side length AND by angle

1  acute equilateral	2  right scalene	3  acute isosceles	4  obtuse scalene
5  obtuse scalene	6  acute isosceles	7  obtuse scalene	8  acute equilateral
9  obtuse scalene	10  right scalene	11  acute scalene	12  obtuse <del>scalene</del> isosceles
13  acute equilateral	14  acute scalene	15  obtuse scalene	16  acute equilateral
17  acute equilateral	18  right scalene	19  acute equilateral	20  obtuse scalene
21  obtuse scalene	22  acute isosceles	23  obtuse scalene	24  acute equilateral

# Midpoints, Medians, and Diagonals in Polygons

Adjacent  
Bisect  
Diagonal

Median  
Midpoint  
Parallelogram

Perpendicular  
Polygon  
Quadrilateral

Triangle  
Vertex

Term	Definition	Examples	Non-Examples
polygon	Any enclosed 2D shape made up of straight lines		
vertex	A corner of a 2D or 3D shape		
triangle	Any enclosed figure with three straight sides. The sum of the interior angles is 180°		
quadrilateral	Any enclosed figure with four straight edges. The sum of the interior angles is 360°		
parallelogram	Any 4-sided figure with two pairs of parallel sides		
adjacent	Next to; beside		
diagonal	A line joining two vertices of a polygon that are not next to each other		
midpoint	The points on a line segment that is in the middle of the two endpoints		
median	A line segment joining a vertex of a triangle to the opposite side's midpoint		
perpendicular	Two lines that meet at a 90° angle		
bisect	To divide in half		

