

STUDY LINK
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An Unofficial Census



In 1991, author Tom Heymann took an unofficial U.S. census. The table shows how many people believed various common sayings, based on the sample of the population that he surveyed.

	Saying	Number Who Believe Saying Is True
A	Look before you leap.	175,104,000
B	The grass is always greener on the other side of the fence.	69,312,000
C	Haste makes waste.	153,216,000
D	Beauty is only skin deep.	149,568,000
E	Don't cry over spilled milk.	160,512,000
F	The early bird catches the worm.	136,800,000
G	A penny saved is a penny earned.	155,040,000
H	Don't count your chickens before they hatch.	169,632,000

Source: *The Unofficial U.S. Census*, by Tom Heymann. Ballantine Books, 1991

- Which saying had the largest number of believers? _____
- How many more people believed saying E than saying G? _____
- Which saying had about 100 million more believers than saying B? _____
- About $\frac{7}{10}$ of the U.S. population in 1991 believed saying A to be true. What was the total population? _____
 - About what percent of the total population believed saying F to be true? _____

Practice


5. 256 - 148 ———	6. 26,551 + 2,558 ———	7. 36 * 27 ———
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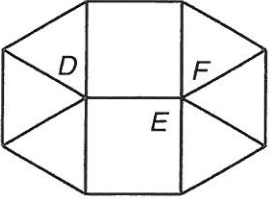
8. $54 \div 3 =$ _____	9. $74 \div 8 \rightarrow$ _____
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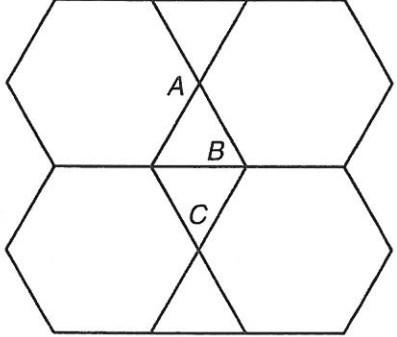
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Finding Angle Measures



Figure out the angle measures for the labeled angles in the patterns below. Remember that there are 360° in a circle and 180° in a straight line. Use the Geometry Template, or cut out the shapes at the bottom of this page to help you. Do not use a protractor.

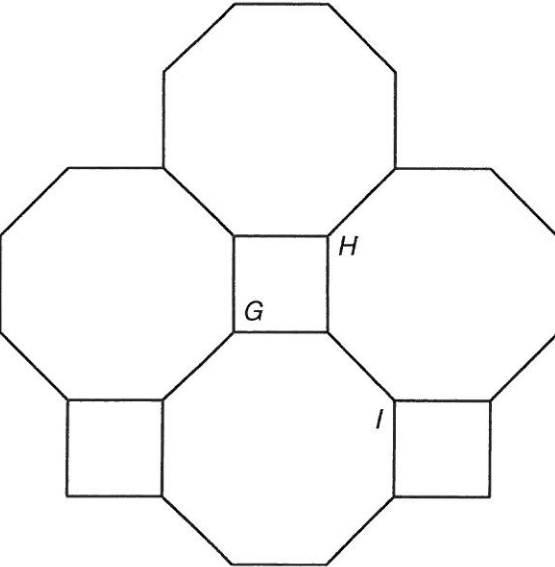
1.  $m\angle D =$ _____
 $m\angle E =$ _____
 $m\angle F =$ _____

2. 

$m\angle A =$ _____

$m\angle B =$ _____

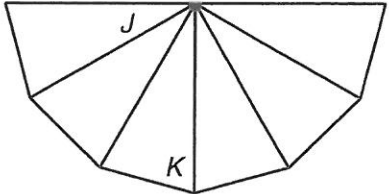
$m\angle C =$ _____

3. 

$m\angle G =$ _____

$m\angle H =$ _____

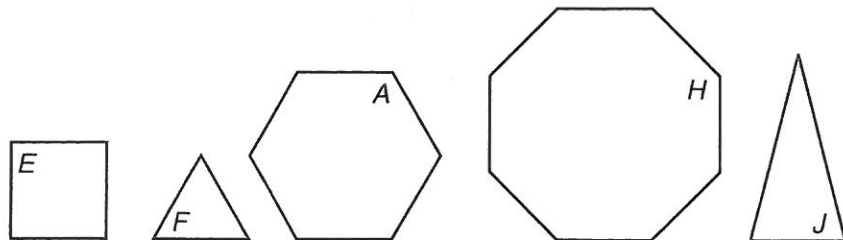
$m\angle I =$ _____

4. 

$m\angle J =$ _____

$m\angle K =$ _____

5. On the back of this page, explain how you found the measure of $\angle I$.



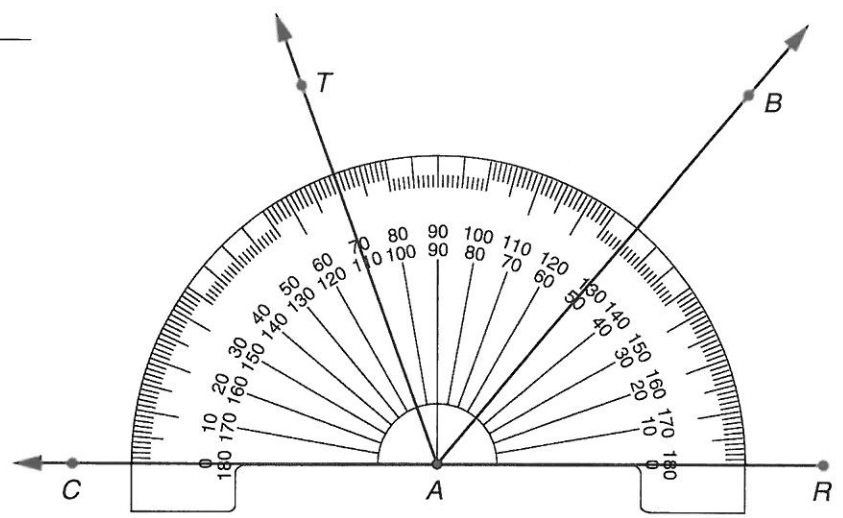
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Angle Measures



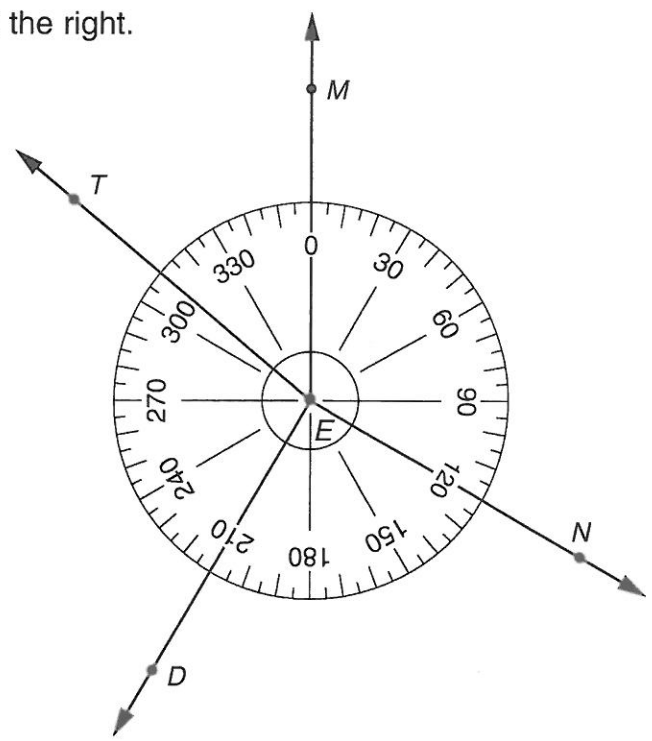
Find the approximate measure of each angle at the right.

1. measure of $\angle CAT =$ _____
2. $m\angle BAR =$ _____
3. $m\angle RAT =$ _____
4. $m\angle CAB =$ _____
5. $m\angle BAT =$ _____
6. $m\angle CAR =$ _____



Find the approximate measure of each angle at the right.

7. $m\angle MEN =$ _____
8. $m\angle DEN =$ _____
9. $m\angle MET =$ _____
10. $m\angle MED =$ _____
11. $m\angle TEN =$ _____



Practice

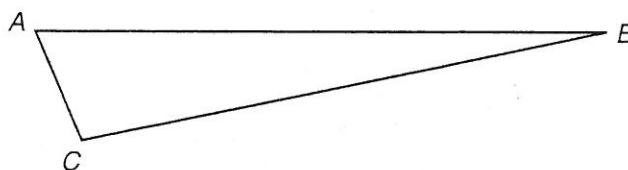
<p>12. $\begin{array}{r} 5,844 \\ + 2,399 \\ \hline \end{array}$</p>	<p>13. $\begin{array}{r} 238 \\ - 129 \\ \hline \end{array}$</p>	<p>14. $\begin{array}{r} 234 \\ * 22 \\ \hline \end{array}$</p>
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15. $60 \div 5 =$ _____ 16. $50 \div 6 \rightarrow$ _____

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Angles in Figures



Circle *acute*, *right*, or *obtuse* for each angle in triangle ABC .
Then measure each angle.

1. $\angle ABC$ acute right obtuse $m\angle ABC =$ _____

2. $\angle CAB$ acute right obtuse $m\angle CAB =$ _____

3. $\angle BCA$ acute right obtuse $m\angle BCA =$ _____

Use the figure at the right to do Problems 4–6.

4. Name a pair of adjacent angles.

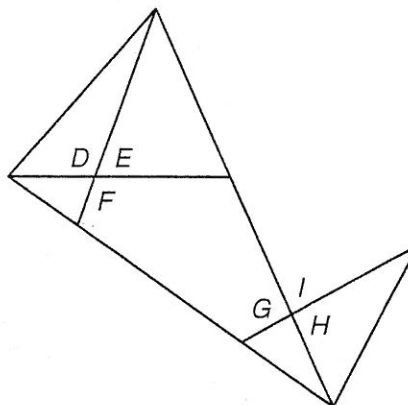
_____ and _____

5. Name a pair of vertical angles.

_____ and _____

6. Name a pair of opposite angles.

_____ and _____


Practice


7.
$$\begin{array}{r} 7,568 \\ + 9,217 \\ \hline \end{array}$$

8.
$$\begin{array}{r} 415 \\ - 207 \\ \hline \end{array}$$

9.
$$\begin{array}{r} 326 \\ * 45 \\ \hline \end{array}$$

10. $68 \div 4 =$ _____

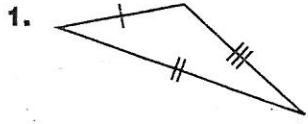
11. $78 \div 7 \rightarrow$ _____

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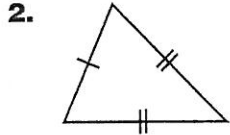
Triangle and Angle Review



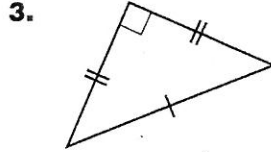
For each triangle below, fill in the ovals for all the names that apply.



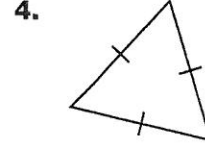
- equilateral
 isosceles
 right
 scalene



- equilateral
 isosceles
 right
 scalene



- equilateral
 isosceles
 right
 scalene



- equilateral
 isosceles
 right
 scalene

On the back of this page, draw three angles of different sizes that you find at home. (For example, you could trace one corner of a book.) For each angle, name the object that has the angle. Then use words from the Word Bank to name each angle.

5. a. Object _____

Type of angle _____

b. Object _____

Type of angle _____

c. Object _____

Type of angle _____

Word Bank

acute	obtuse	right
adjacent	reflex	straight

Practice

6. $4,117 + 3,682 + 3,962 =$ _____

7. $8,036 - 2,286 =$ _____

8. $8,481 * 5 =$ _____

9. $99 \div 9 =$ _____



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Odd Shape Out



In each set of shapes, there is one shape that doesn't belong. Cross out that shape and tell why it doesn't belong. (There may be more than one possible reason. What's important is having a good reason for crossing out a shape.)

1.



Reason: _____

2.



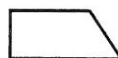
Reason: _____

3.



Reason: _____

4.



Reason: _____

5. Make up your own "Odd Shape Out" problem on the back of this page.

Practice

6. $1,042 + 2,834 + 4,096 =$ _____

7. $9,062 - 3,718 =$ _____



8. $9,109 * 9 =$ _____

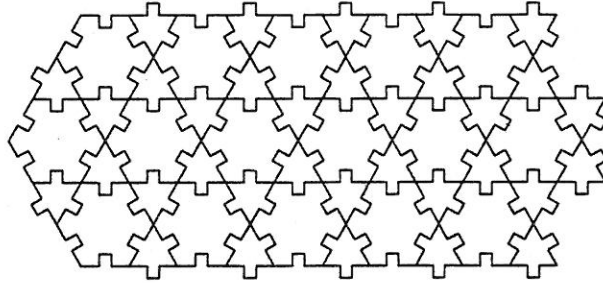
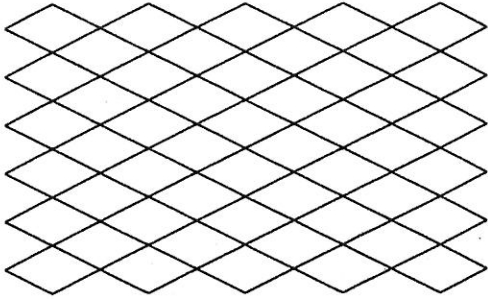
9. $58 \div 6 \rightarrow$ _____

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Tessellation Museum



A **tessellation** is an arrangement of repeated, closed shapes that completely covers a surface, without overlaps or gaps. Sometimes only one shape is used in a tessellation. Sometimes two or more shapes are used.



1. Collect tessellations. Look in newspapers and magazines. Ask people at home to help you find examples.
2. Ask an adult whether you may cut out the tessellations. Tape your tessellations onto this page in the space below.
3. If you can't find tessellations in newspapers or magazines, look around your home at furniture, wallpaper, tablecloths, or clothing. In the space below, sketch the tessellations you find.

Practice

4. $1,987 + 6,213 + 2,046 =$ _____

5. $4,615 - 3,148 =$ _____

6. $3,714 * 8 =$ _____

7. $39 / 7 \rightarrow$ _____

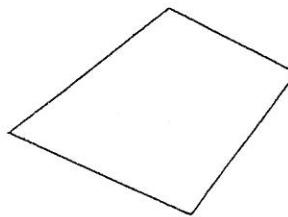


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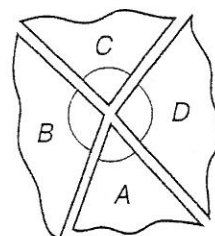
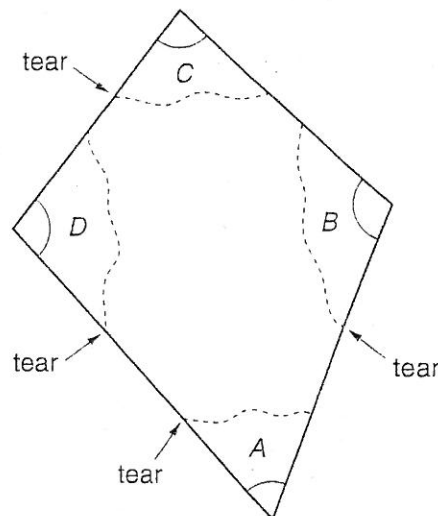
Sums of Angle Measures



- Describe one way to find the sum of the angles in a quadrangle without using a protractor. You might want to use the quadrangle at the right to illustrate your explanation.



- The sum of the angles in a quadrangle is _____.
- Follow these steps to check your answer to Problem 2.
 - With a straightedge, draw a large quadrangle on a separate sheet of paper.
 - Draw an arc in each angle.
 - Cut out the quadrangle and tear off part of each angle.
 - Tape or glue the angles onto the back of this page so that the angles touch but do not overlap.



Practice

4. $3,007 + 1,251 + 980 =$ _____

5. $4,310 - 1,290 =$ _____



6. $3,692 * 6 =$ _____

7. $67 \div 8 \rightarrow$ _____

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Polygons and Their Measures



1. Draw each of the following figures.

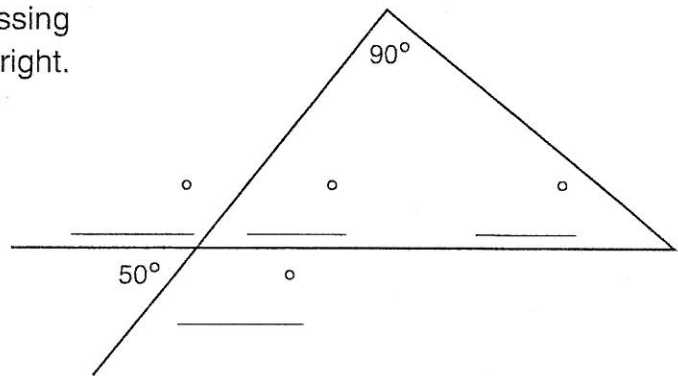
a. a polygon

b. a triangle with
no equal sides

c. a quadrangle
with one right
angle

d. a quadrangle
with no pairs
of parallel sides

2. Without using a protractor, record the missing angle measurements in the figure to the right.



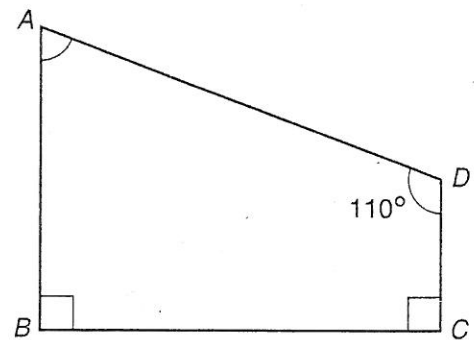
3. Use the figure to the right to answer the questions.

a. How long is line segment CD ? _____ cm

b. What is the measure of angle A ? _____

c. What is the sum of the measures of all
the angles? _____

d. What is a geometric name for the figure? _____



Practice

4. $1,476 + 2,724 + 3,241 =$ _____

5. $4,002 - 1,361 =$ _____

6. $5,031 * 4 =$ _____

7. $27 \div 9 =$ _____

