

Harder ones...

DISCUSS: Which angles MUST be congruent to angle 19? Why? angle 18, angle 3, angle 5


## QUIZ IS TOMORROW!!!

$\square$ Measuring Angles with a protractor
$\square$ Complementary/Supplementary/Vertical
$\square$ Finding angle measures with parallel lines and a transversal
$\square$ Corresponding/Alternate Interior/Alternate
Exterior/Same-side interior
$\square$ Angle sums of triangles (today)

## Harder ones...

DISCUSS: Which angles MUST be congruent to angle 1? Why? $\quad$ angle 7, angle 14, angle 16


## Harder ones...

DISCUSS: Which angles MUST be congruent to angle 10? Why?


$$
\text { p. } 375(1-8,10)
$$

Corresponding
2) Alternate Exterior
3) $m \angle 4=30^{\circ}$ because it is supplementary with $\angle 1$.
$m \angle 7=150^{\circ}$ because it is
corresponding to $\angle 1$.
4) $70^{\circ} ; \angle 2$ is corresponding
to $\angle 6$, and $\angle 6$ is
supplementary with $\angle 7$.
5) $110^{\circ} ; \angle 2$ and $\angle 8$ are alternate interior.

## Triangle Activity

Use your ruler to draw a large-ish triangle on a piece of paper you are not using. Then use your scissors to cut it out. (It is very important you use your ruler to draw the triangle instead of just freehanding it)
2. Tear (DO NOT CUT!) the three corners off.
3. Line the three corners up so that the tips are all touching. What do you notice? What does this mean?

| Table of Contents ( $\mathbf{2}^{\text {nd }}$ Semester) |  |
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|  | Exponent Basics (1.2) <br> Multiplying and Dividing Powers (1.3) <br> Power to a Power (1.4) <br> Zero \& Negative Exponents (1.5) <br> Scientific Notation (1.6) <br> Calcluating with Scientific Notation (1.7) <br> Angle Basics <br> Angles formed by Parallel Lines (5.1) <br> Angles of Triangles (5.3) |


| Angles of Triangles |
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| Objectives: |
| $\square \frac{\text { Prove that the angle sum of a triangle is } 180^{\circ}}{}$Find missing angle measures in triangles <br>  <br>  |

PROVING the angle sum of a
triangle...



What is the measure of the exterior
angle?
$1 x+2 x+3 x=180$
$6 x=180$
$x=30$
$1 \mathrm{x}=1 \cdot 30=30^{\circ}$
$2 \mathrm{x}=2 \cdot 30=60^{\circ}$
$3 \mathrm{x}=3 \cdot 30=90^{\circ}$
$30^{\circ}, 60^{\circ}, 90^{\circ}$

Check: $30+60+90=180$ !

## Algebra Connection

$\square 3$ angles in a triangle have a ratio of $1: 2: 3$. What are the measures of the angles?
? $30+60+90=$

## EXTERIOR ANGLE RULE:

$\square$ The measure of an exterior angle in a triangle is the sum of the measures of the two nonadjacent interior angles.

$m \angle 1+m \angle 2=x$

HOMEWORK
$\square \mathrm{p} .393(1-12,14)$

Find the missing angle measures.


| HOMEWORK |
| :--- |
| $\square \mathrm{p} .393(1-12,14)$ |
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