# Warmup 2/(\# of exclamation points ir 

 "CHIEFS WIN!!!")Created by Mr. Lischwe

## WARMUP: Compare homework answers with your table!!!

Check Homework

## QUIZ (End of class if time)

## TABLE OF CONTENTS: $\mathbf{2}^{\text {ND }}$ SEMESTER

Geometry Basics
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## Remember: 4 Types of angles

Acute: between 0 and 90 degrees
Right: exactly 90 degrees
Obtuse: between 90 and 180 degrees
Straight: exactly 180 degrees

By the way, an angle over 180 degrees is called a "reflex" angle

## Adjacent Angles: Share a side and vertex (next to each other)



## Linear Pair

- A linear pair is when a straight line is divided into two angles on one side.



## Check In

If one angle of a linear pair is acute, then the other angle must be obtuse. Explain why.

## Complementary Angles



## COMPLIMENTARY ANGLES

Complementary Angles are two angles whose measures add up to $90^{\circ}$.

Supplementary Angles are two angles whose measures add up to $180^{\circ}$.
(They don't have to be adjacent!!!)

## Check In

What is the difference between supplementary angles and a linear pair of angles?

What is the complement of a $50^{\circ}$ angle? $40^{\circ}$
What is the supplement of a $50^{\circ}$ angle? $130^{\circ}$
What is the complement of a $27^{\circ}$ angle? $63^{\circ}$
What is the supplement of a $102^{\circ}$ angle? $78^{\circ}$
What is the supplement of a $155.5^{\circ}$ angle? $24.5^{\circ}$
What is the complement of a $45^{\circ}$ angle? $45^{\circ}$
What is the complement of a $95^{\circ}$ angle? None

Find the missing angle measures:


When two lines intersect, the angles that are opposite each other are vertical angles.

$\angle 1 \cong \angle 3$ and $\angle 2 \cong \angle 4$

## Small Intro to Proofs

Given: $\angle 2$ and $\angle 4$ are vertical angles.

## Prove: $\angle 2 \cong \angle 4$



Check In: Name those Angle Pairs!!!


1) Name a linear pair of angles

4 and $5(\mathrm{Cor} \mathrm{m} 5)$
2) Name a pair of vertical angles

1 and 4

Find the Measure of all of the Angles


Find the measurement of all other angles in the picture.


Find all the remaining angle measures. Give a reason for each.


## Summary: <br> Name an example of each of the following:

An acute angle
An obtuse angle
A right angle
A straight angle
A pair of adjacent angles
A pair of vertical angles
A pair of complementary angles
A pair of supplementary angles
A pair of congruent angles


## Solving for missing angles



| Angle | 1 | 2 | 3 | 4 | 5 | 6 | 7 | $\bigcirc$ | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Measure (number of degrees) | 은 | + | 은 | \% | $\mathrm{S}^{\circ}$ | \% | 8 | 8 | 8 | \% | \% | $\bar{\infty}$ | 8 | $\bar{\infty}$ | \% |

## Do you remember?

Triangle Angle Sum Theorem: The sum of the measures of the interior angles of a triangle is $180^{\circ}$.


Find the measures of $\angle 2$ and $\angle 11$.


Homework!
Complete p. 939 (1-9)
And the $1 / 2$ sheet

