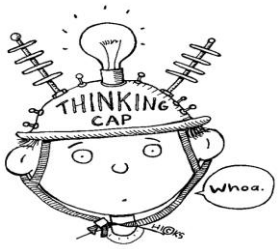
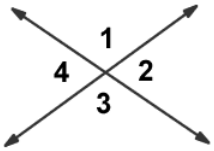
Date:_____



Lesson 10-1 (pages 510-513)

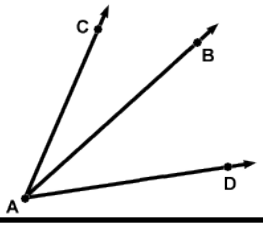
Angle Relationships

The Examples:



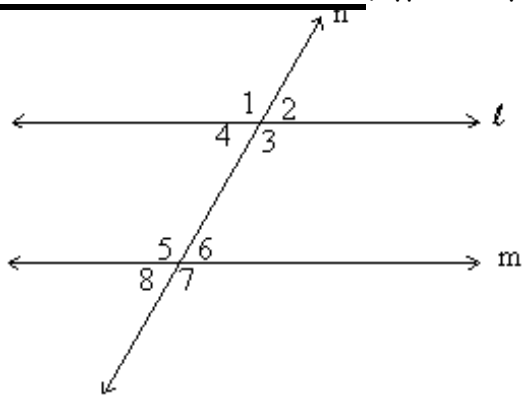
The Vocabulary:

Vertical Angles:



Adjacent Angles:

Transversals (supplementary bookpages)



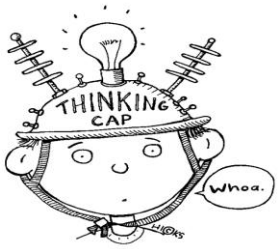
The Examples:

The Vocabulary:

Alternate Interior Angles:

Alternate Exterior Angles:

Corresponding Angles:

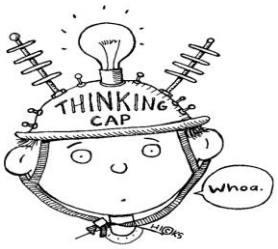


Date:_____

Lesson 10-2 (pages 514-517)

Complementary and Supplementary Angles

Word	Definition	Example



Date:_____

Lesson 10-4 (pages 524-529)

Triangles

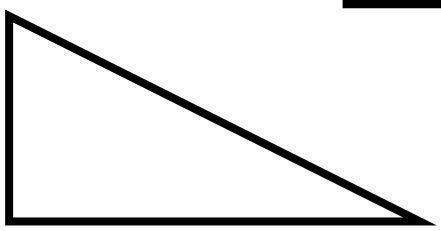
Triangle:

2 Names are needed to "Classify the Triangle"

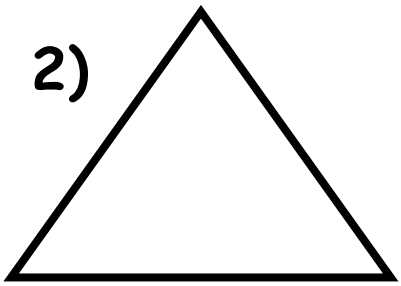
_____ _____

By Angles

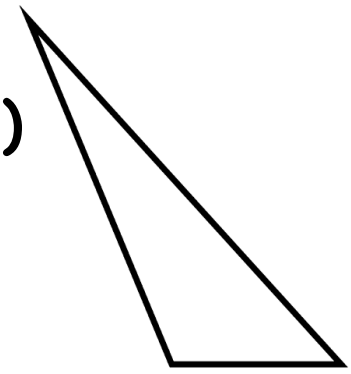
1)



2)



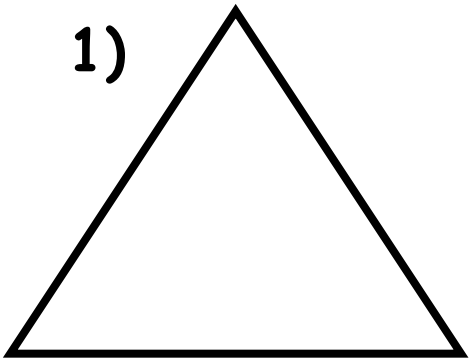
3)



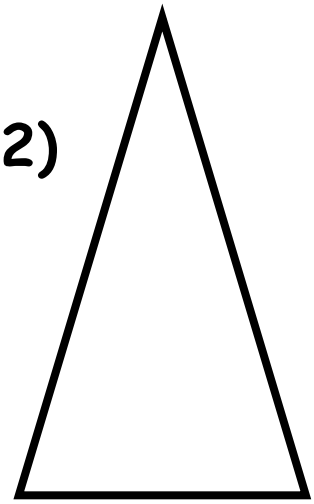
By Sides

Date:_____

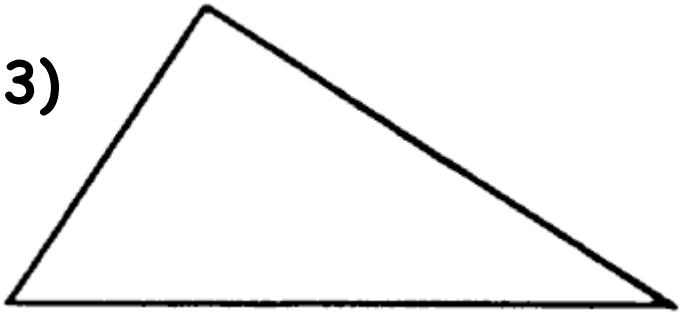
1)



2)



3)

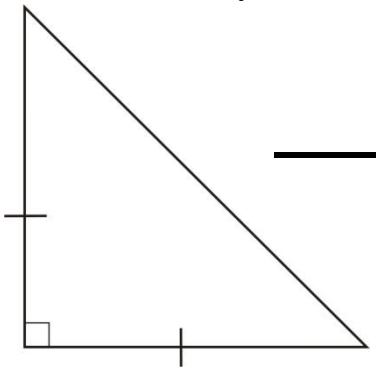


Classify the Triangle

2 Names are needed to "Classify the Triangle"

_____ _____

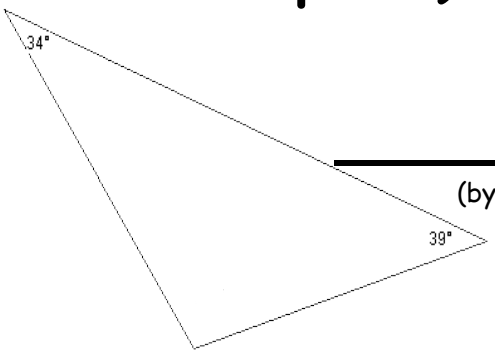
Example 1)



_____ _____ **triangle**

(by angles) (by sides)

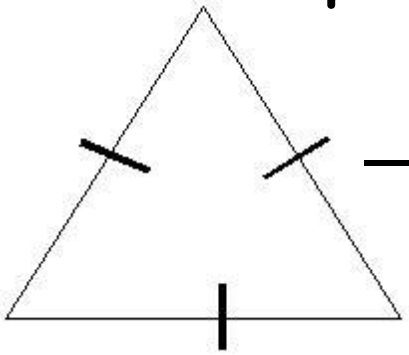
Example 2)



_____ _____ **triangle**

(by angles) (by sides)

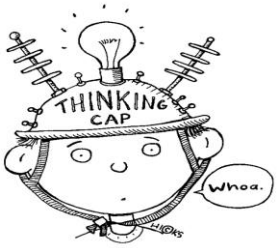
Example 3)



_____ _____ **triangle**

(by angles) (by sides)

Date:_____



Date:_____

Lesson 10-7 (pages 540-545)

Similar Figures

Similar Figures:

If 2 figures are similar, then

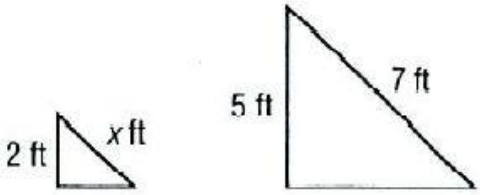
1) the _____ _____ are _____

2) the _____ _____ are _____

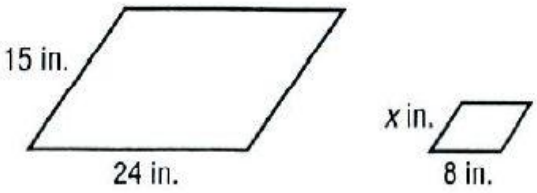
Date:_____

Find the value of x in each pair of similar figures.
Be sure to show your proportion and steps ☺

Example 1)



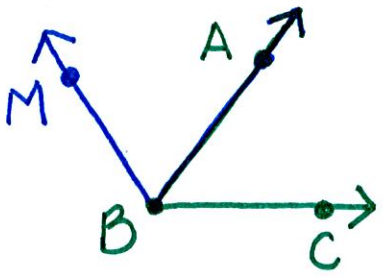
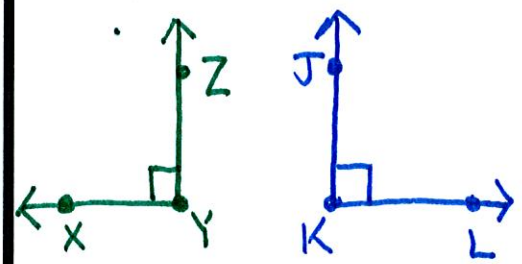
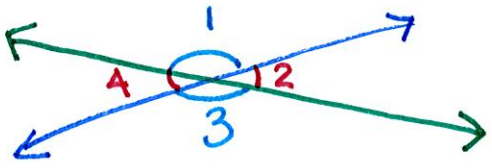
Example 2)

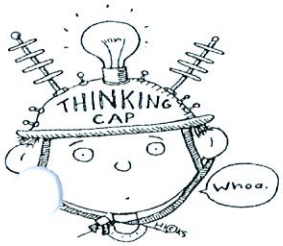


Date: 4/23/12

Lesson 10-1 (pages 510-513)

Vertical and AdjacentAngles (part 2)

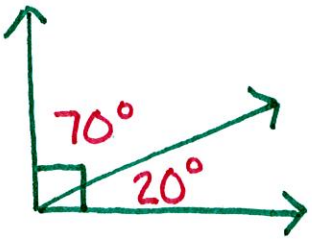
Word	Definition	Example
"next to" ↙ Adjacent Angles	2 angles that have... * a common vertex * a common side (B) $\overrightarrow{BA}$ * DO NOT OVERLAP	
Congruent "Congruent" is for letters	having the same measure	 $\angle XYZ \cong \angle JKL$
Vertical Angles	When 2 lines intersect, the <u>opposite</u> angles are vertical angles. Vertical angles are always CONGRUENT	 $\angle 2$ & $\angle 4$ are vertical angles $\angle 1$ & $\angle 3$ are vertical angles

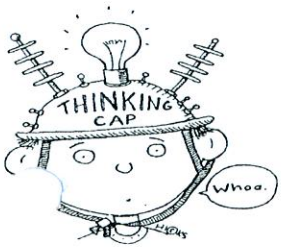


Date: 4/24/12

Lesson 10-2 (pages 514-517)

Complementary and Supplementary Angles

Word	Definition	Example
Complementary Angles C is for "corner"	2 angles that have a sum of 90° Obtuse angles do not have a complement	110°, NONE  32°, 58° 40°, 50° 2°, 88° 90 − 32 = 58
Supplementary Angles S is for "straight"	2 angles that have a sum of 180°	 40°, 140° 2°, 178° 110°, 70°

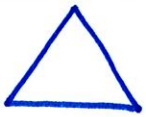


Date:

Lesson 10-4 (pages 524-529)

Triangles

Triangle: a figure with 3 sides & 3 angles

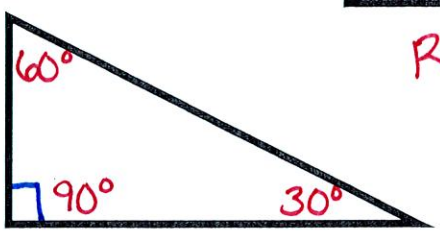


2 Names are needed to "Classify the Triangle"

Angles Sides

By Angles

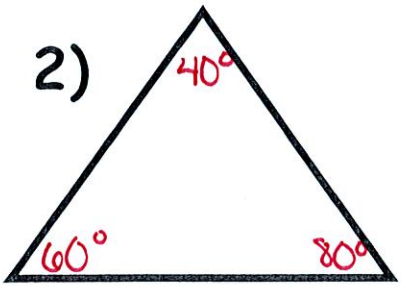
1)



Right Triangle
- has 1 right angle

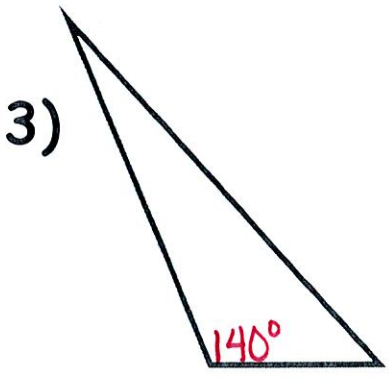
The sum of all angles of a triangle is 180°

2)



Acute Triangle
- all angles are less than 90°

3)

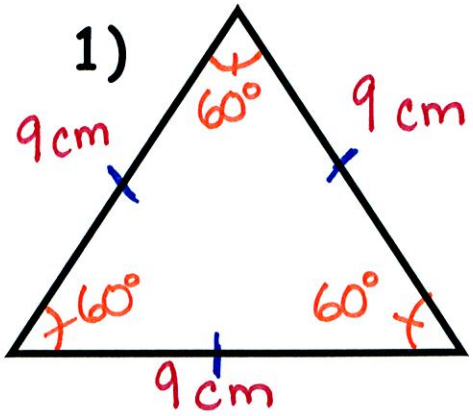


Obtuse Triangle
- has 1 obtuse angle

By Sides

Tick marks show congruency

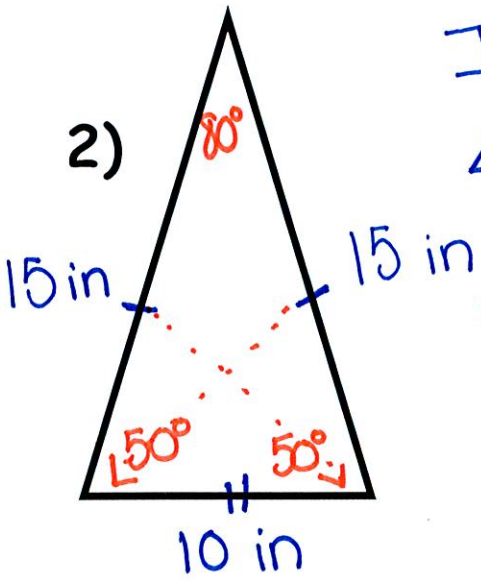
1)



Equilateral Triangle
(equal) (sides)

- all sides are congruent
- all angles are congruent

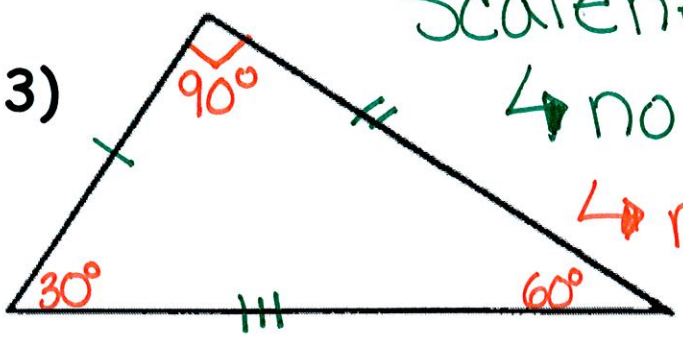
2)



Isosceles Triangle

- at least 2 sides congruent
- 2 congruent angles

3)



Scalene Triangle

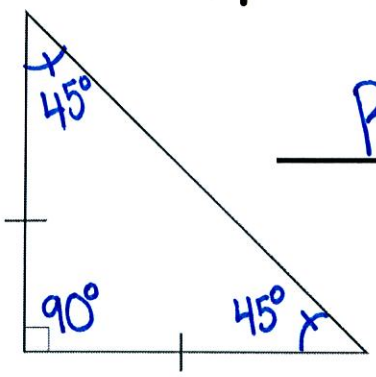
- no sides are congruent
- no congruent angles

Classify the Triangle

2 Names are needed to "Classify the Triangle"

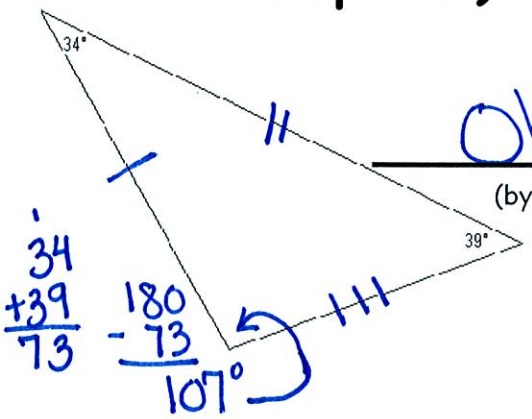
Angles Sides

Example 1)



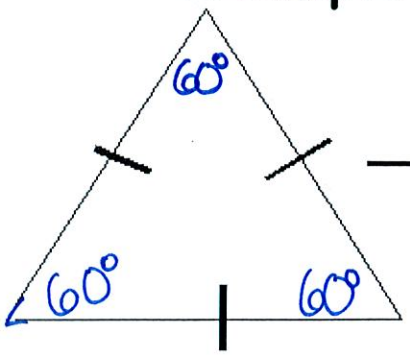
Right (by angles) Isosceles (by sides) triangle

Example 2)



Obtuse (by angles) scalene (by sides) triangle

Example 3)

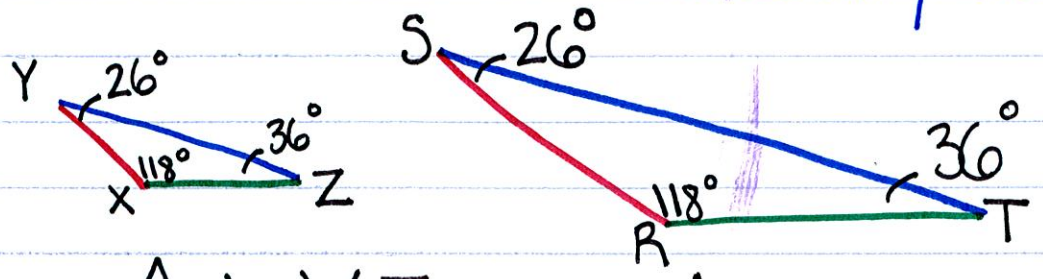


Acute (by angles) Equilateral (by sides) triangle

Lesson 10-7

Similar Figures (p540-545)

Similar Figures: figures that have the same shape but not necessarily the same size



$\triangle XYZ \sim \triangle RST$

~ ← Symbol

If 2 figures are similar, then

① the corresponding angles are congruent

"the angles of the similar figures that match"

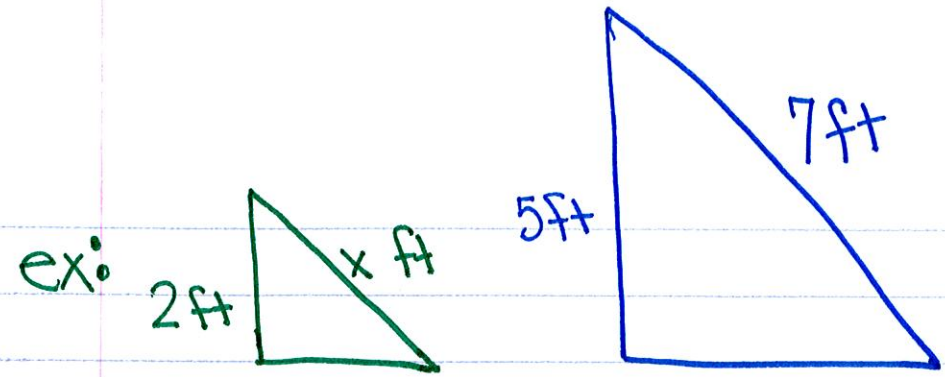
ex: $\angle YXZ \cong \angle SRT$ $(=118°)$
ex: $\angle XYZ \cong \angle RST$ $(=26°)$
ex: $\angle YZX \cong \angle STR$ $(=36°)$

② the corresponding sides are proportional

"the sides of the similar figures that match"

ex: $\overline{YX} \cong \overline{SR}$
ex: $\overline{ZX} \cong \overline{TR}$
ex: $\overline{YZ} \cong \overline{ST}$

ex:



$$\frac{2}{5} = \frac{x}{7}$$

$5x = 2 \cdot 7$

$\frac{5x}{5} = \frac{14}{5}$

$x = 2.8$ ft

① Write a proportion

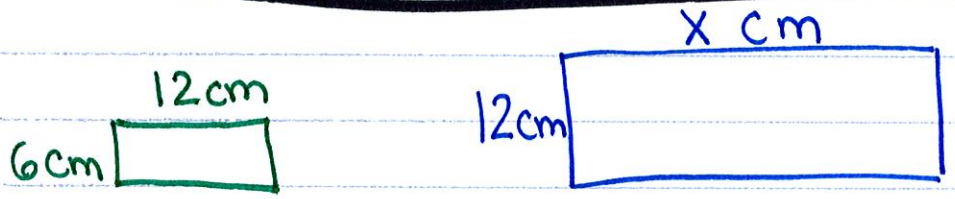
$\frac{\text{little}}{\text{big}} \wedge \frac{\text{big}}{\text{little}}$

② Show proportion steps

③ Answer with a label

---

ex:



$$\frac{6}{12} = \frac{12}{x}$$

$1x = 2 \cdot 12$

$\frac{1x}{1} = \frac{24}{1}$

$x = 24$ cm