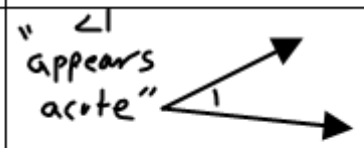
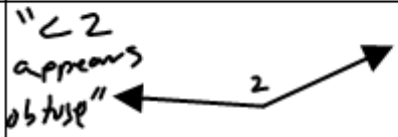
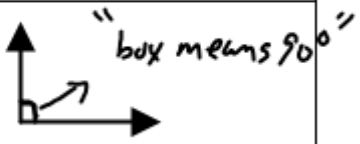
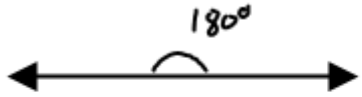
1.2. Honors Geometry

DATE: 9/4

Target 1A. Recognize and identify the basic terms of geometry.

Word	Definition	Picture
1) Acute ∠	$0° < \text{Acute} < 90°$	"∠1 appears acute" 
2) Obtuse ∠	$90° < \text{obtuse} < 180°$	"∠2 appears obtuse" 
3) Right ∠	$90°$	
4) Straight ∠	$180°$	

Important Distinctions

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Angles congruent	Angles equal in measure
$\angle A \cong \angle B$ ↳ congruent	$\angle A = 70^\circ = \angle B$ or $m\angle A = 70^\circ = m\angle B$
Segments congruent	**Segments equal in measure**
$\overline{AB} \cong \overline{AC}$	$m\overline{AB} = 7\text{cm} = m\overline{AC}$ $AB = 7\text{cm} = AC$

Parts of a Degree

" Has nothing to do with the clock"

$60' = 1^\circ$ (60 minutes equals 1 degree)

$60'' = 1'$ (60 seconds equals 1 minute)

$180^\circ = 179^\circ 59' 60''$
deg min sec

$90^\circ = 89^\circ 59' 60''$ why?

$60'' = 1'$
Add 1'
$59' + 1' = 60'$
$60' = 1^\circ$
$89^\circ + 1^\circ = 90^\circ$

Examples

1) Convert 37.8° to degrees and minutes.

$37.8^\circ = 37^\circ 48'$ (deg, min)

$0.8(60) = 48'$

2) Convert 52°18′ to degrees.

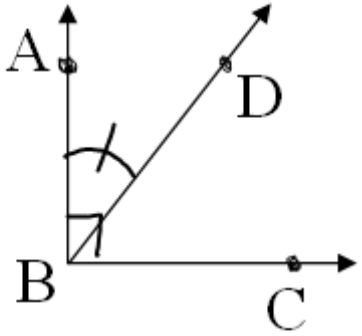
$52^\circ 18' = 52\frac{3}{10}^\circ$ or 52.3° (deg)

$\frac{18 \div 6}{60 \div 6} = \frac{3}{10} = 0.3$

3) Given: $\angle ABC$ is a right angle

3) Given: $\angle ABC$ is a right angle $= 90°$

$\angle ABD = 64°29'18''$



Find: $\angle DBC$.

(Leave answer in degree/minute/second form)

$\angle ABC$
$-\angle ABD$
$\angle DBC$

$\Rightarrow 90° - 64°29'18''$

$\Rightarrow 89°59'60'' - 64°29'18''$

$25°30'42''$

Final ans.