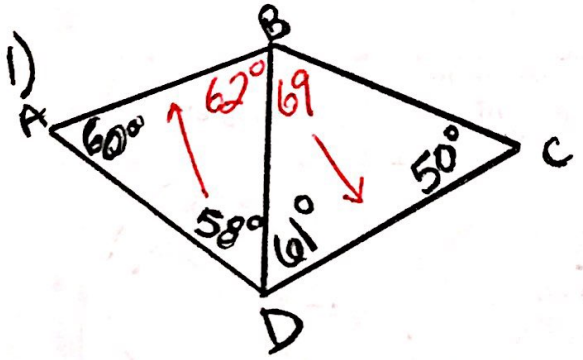
Know This Vocabulary!

altitude	incenter	orthocenter
centroid		perpendicular bisector
circumcenter		point of concurrency
concurrent lines	median	

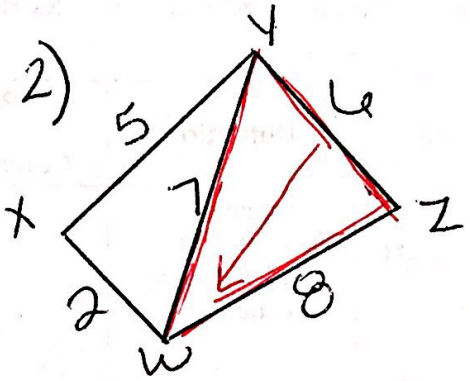
1)



Find the shortest segment in ΔABD. $\overline{AB}$

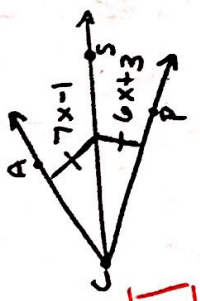
Find the longest segment in ΔDBC. $\overline{DC}$

2)



Find the angle with the smallest measure in ΔWYZ. ∠W

3. If $\overrightarrow{CS}$ bisects ∠ACP find x



$7x-1=6x+3$
$-6x \quad -6x$
$x-7=3$
$+7 \quad +7$
$\boxed{x=4}$

4. Can this be a triangle?
2, 2, 6 $\boxed{NO}$
$2+2>6$?

5. Can this be a triangle?
2, 3, 4 $\boxed{YES}$
?
$2+3>4$
$2+4>3$
$3+4>2$

6. Can this be a triangle?
0.3, 0.4, 0.5 $\boxed{YES}$
$.3+.4>.5$
$.3+.5>.4$
$.4+.5>.3$

7. Find the range for the third side of a Δ.
6 and 10
$10-6<c<10+6$
$\boxed{4<c<16}$

8. Find the range for the 3rd side of a Δ.
32 and 34
$34-32<c<32+34$
$\boxed{2<c<66}$

9. Find the range for the 3rd side of a Δ.
8 and 8
$8-8<c<8+8$
$\boxed{0<c<16}$