Week 3 Material

Pre-Test

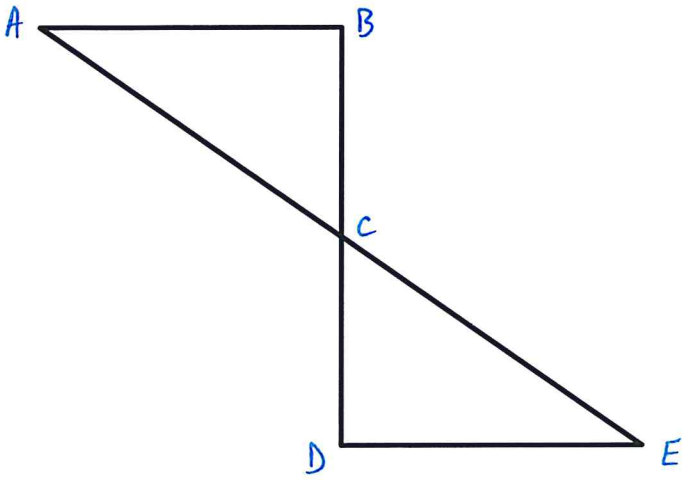
Prove the following triangles are CONGRUENT using SSS, SAS, ASA, AAS or HL:

1. **Given:** $\overline{AB} \,||\, \overline{ED}$

   $\overline{BD} \perp \overline{AB}$

   $\overline{BD} \perp \overline{DE}$

   Prove: Δ ABC ≅ Δ DEC

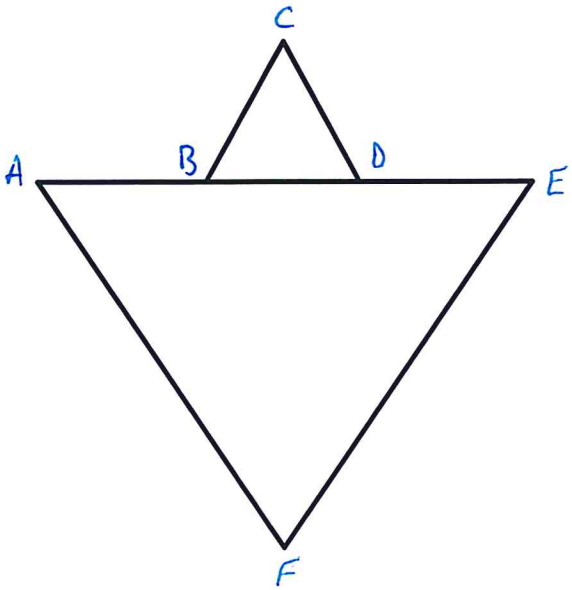


Prove the following triangles are SIMILAR using SSS, SAS, or AA:

2. **Given:** AB = 5, BD = 5, DE = 5

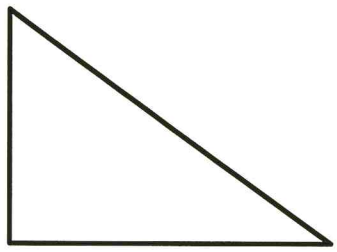
   BC = 3, CD = 3, AF = 9, EF = 9

   $\angle A = 55^o$, $\angle F = 65^o$, $\angle C = 65^o$, $\angle CBD = 60^o$



Evaluate the six trigonometric functions for the regular right triangle using $\angle A$:

3. a = 4, b = 8, & c = $4\sqrt{5}$

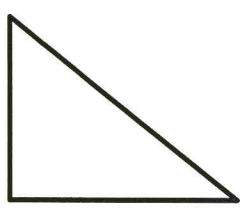


Using the hand trick discussed in class, give the exact value of each of the following trig functions:

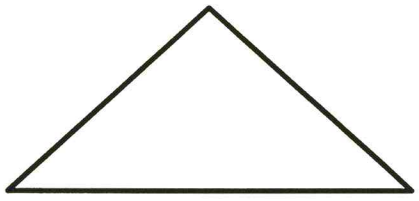
Given Angle	Reference Angle	Quadrant Terminal Side is located in	Exact Value
4. $sin\ 210^o$			
5. $cos{-}240^o$			
6. $\tan -270^o$			

Solve the following triangles given the information provided on a separate sheet of paper:

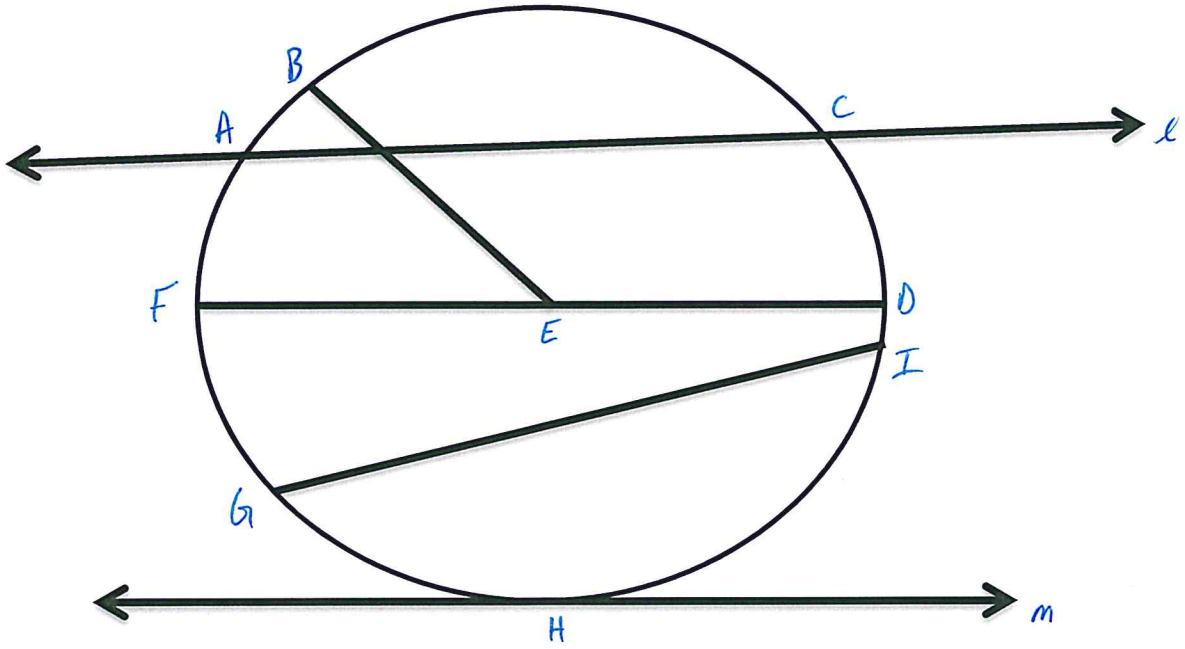
7. $\angle A = 60^o$ & $c = 15$



8. a = 29, b = 13, & $\angle C = 41^o$

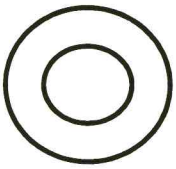
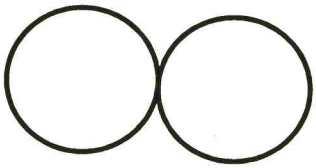


Use the following figure to answer questions #1 - #7 :



1. Name any chords shown above.	2. Name the secant shown above.
3. Name the diameter shown above.	4. Name all radi shown above.
5. Name the tangent shown above.	6. Name the point of tangency shown above.
7. Name the circle shown above.	

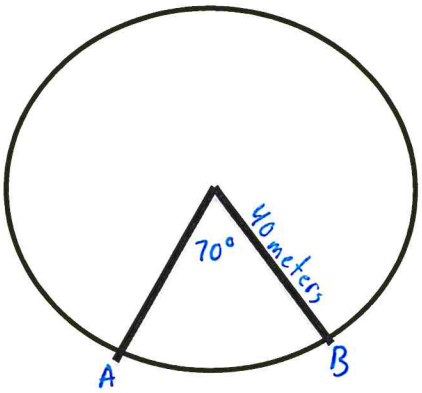
Identify the number of and draw each common tangent in each of the following figures:

8.	9.
	

Find the indicated measure:

10. Find the circumference of a circle with a diameter of 40 meters.

11. Find the length of $\widehat{AB}$ given



Find the indicated measure:

12. Find the area of a circle with a diameter of 40 meters.

13. Find the area of the sector given: