

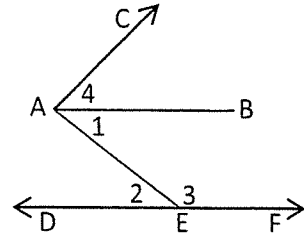
# Geo (H)

## Chapter 2 - TEST REVIEW

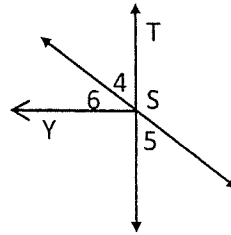
1. Write a flow proof for each of the following.

- a. Given:  $\overline{AB}$  bisects  $\angle CAE$   
 $\angle 2 \cong \angle 4$

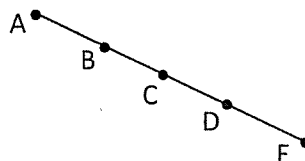
Prove:  $\angle 1$  supplementary  $\angle 3$



- b. Given:  $\overline{ST} \perp \overline{SY}$   
Prove:  $\angle 6$  complementary  $\angle 5$

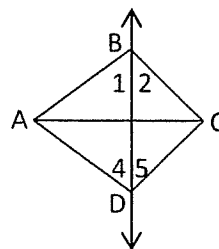


- c. Given: B is the midpoint of  $\overline{AC}$   
 D is the midpoint of  $\overline{CE}$   
 $\overline{AB} \cong \overline{DE}$



Prove:  $\overline{AC} \cong \overline{CE}$  (C.P.C.T.)

- d. Given:  $\overline{AB} \perp \overline{BC}$ ;  $\overline{AD} \perp \overline{CD}$  (C.P.C.T.)  
 $\angle 1 \cong \angle 4$   
 Prove:  $\angle 2 \cong \angle 5$



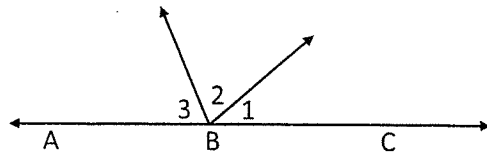
2. The sum of the measures of the supplement and complement of an angle is  $184^\circ$ . Find the measure of the angle, the complement and the supplement. (7 pts)

3. A, B and C are collinear.  $\angle 1$ ,  $\angle 2$  and  $\angle 3$  are in the ratio of  $4 : 5 : 7$ . Find the measure of each angle. (6 pts)

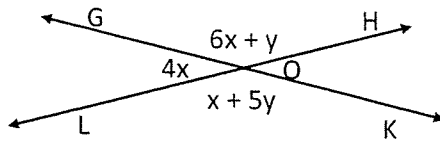
$m\angle 1 =$  \_\_\_\_\_

$m\angle 2 =$  \_\_\_\_\_

$m\angle 3 =$  \_\_\_\_\_



4. Find the measure of  $\angle GOL$  and  $\angle GOH$ . (7 pts)



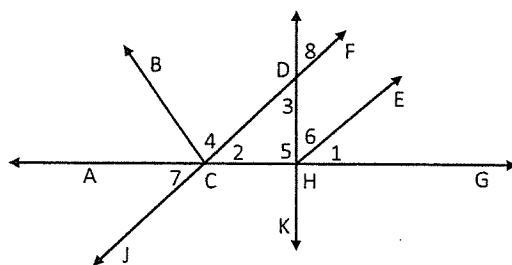
5. Determine if the following statements are sometimes, always or never true. Justify your answer. (3 pts. Ea.)

a. Vertical angles are complementary.

b. If  $\angle A$  is complementary to  $\angle B$  and  $\angle B$  complementary to  $\angle C$ , then  $\angle A$  is complementary to  $\angle C$ .

c. If  $\angle 1 \cong \angle 2$ , then  $\angle 1$  and  $\angle 2$  are vertical angles.

6. Using the diagram and the given information, draw a conclusion and give a reason using only the theorems from this chapter. (2 pts. 50x)



| Given  | Conclusion | Reason |
|--|------------|--------|
| $\angle 1$ complementary $\angle 6$<br>$\angle 2$ complementary $\angle 6$ |            |        |
| $\overline{AC} \cong \overline{HG}$  |            |        |
| $\overline{DK} \perp \overline{CG}$  |            |        |
| $\overline{HE}$ bisects $\angle DHG$                                       |            |        |
| $\angle BCJ \cong \angle ACD$  |            |        |
|  |            |        |
| $\angle 3$ and $\angle 8$ are vertical                                     |            |        |