

### 3.1 Pairs of Lines & Angles CYU DAY ONE

Use when you get it right all by yourself

**S** Use when you did it all by yourself, but made a silly mistake

**H** Use when you could do it alone with a little help from teacher or peer

**G** Use when you completed the problem in a group

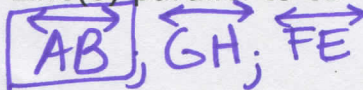
**X** Use when a question was attempted but wrong (get help)

**N** Use when a question was not even attempted

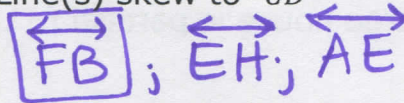
CONCEPTS	BASIC	INTERMEDIATE	ADVANCED
Identifying Parallel, Skew, Perpendicular Lines & Planes	1	5	6
Naming Parallel & Perpendicular Lines	2		
Identifying/Classifying Angles Pairs	3	4	
Vertical Angles & Linear Pairs	7		

1. Think of each segment in the diagram as part of a line. All the angles are right angles. Which line(s) or plane(s) contain point B and appear to fit in the description.

a. Line(s) parallel to  $\overleftrightarrow{CD}$

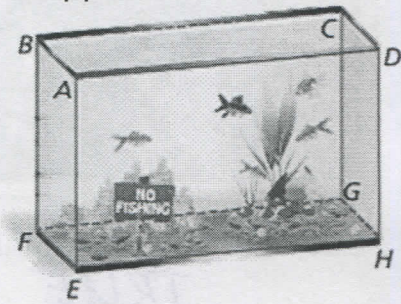


b. Line(s) skew to  $\overleftrightarrow{CD}$



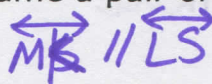
c. Plane(s) parallel to plane CDH

plane ABF

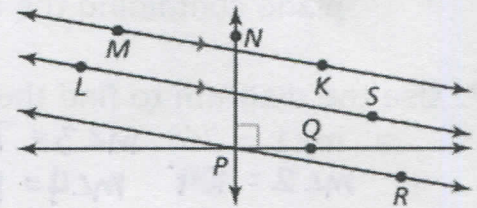
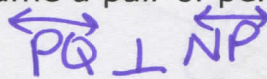


2. Use the diagram provided.

a. Name a pair of parallel lines.



b. Name a pair of perpendicular lines.



3. Identify all pairs of angles of the given type.

a. Corresponding angles

1 & 5; 3 & 7; 4 & 8; 2 & 6

b. AIA

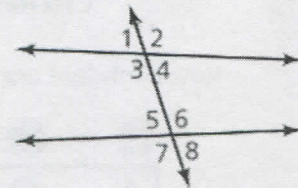
3 & 6; 4 & 5

c. AEA

1 & 8; 2 & 7

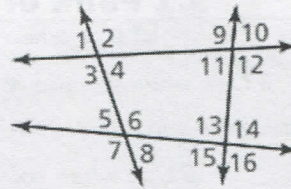
d. SSIA

3 & 5; 4 & 6



4. Classify the angle pair as corresponding, AIA, AEA, SSIA or SSEA.

- a.  $\angle 5$  &  $\angle 1$  *corresponding*
- b.  $\angle 11$  &  $\angle 13$  *SSIA*
- c.  $\angle 6$  &  $\angle 13$  *SSIA*
- d.  $\angle 2$  &  $\angle 11$  *AIA*



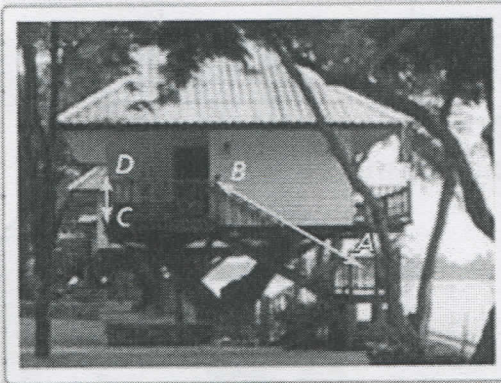
5. Describe and correct the error in the conditional statement about lines.

**X** If two lines do not intersect, then they are parallel.

*If 2 lines do not intersect, => they are // or skew.*

*Depends on planes.*

6. Use the photo to decide whether the statement is TRUE or FALSE. Explain your reasoning.



a. The plane containing the floor of the tree house is parallel to the ground.

*TRUE*

b. The lines containing the railings of the staircase, such as  $\overline{AB}$ , are skew to all lines in the plane containing the ground.

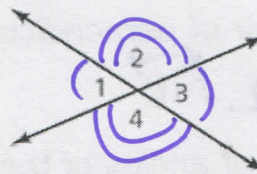
*False eventually it would hit the ground*

c. All the lines containing the balusters, such as  $\overline{CD}$ , are perpendicular to the plane containing the floor of the tree house.

*TRUE*

7. Use the diagram to find the measures of the angles.

- a.  $m\angle 1 = 76^\circ$   $m\angle 3 = 76^\circ$   
 $m\angle 2 = 104^\circ$   $m\angle 4 = 104^\circ$
- b.  $m\angle 2 = 159^\circ$   $m\angle 4 = 159^\circ$   
 $m\angle 3 = 21^\circ$   $m\angle 1 = 21^\circ$



**CYU Reflection:** How far can you go: basic, intermediate, or advanced?

**Rate your mastery level!**

How confident are you with the skills this CYU covered? Circle the score you would give yourself.

●	●	●	●	●	●	●	
1	2	3	4	5	6	7	8
Basic		Intermediate			Advanced		Solved ALL!

