Geometry

3.1 Identify Pairs of Lines and Angles

# Pairs of Lines

||

Parallel Lines (\_\_\_\_\_\_)

Coplanar

NOT intersect

* Lines that do \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and are\_\_\_\_\_\_\_\_\_\_\_\_\_\_

same

Parallel

* Lines go in the \_\_\_\_\_\_\_\_\_\_\_ direction

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Skew Lines

on different planes

NOT intersect

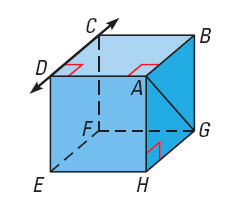
Skew

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

* Lines that do \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

different

* Lines go in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ directions

Name the lines through point H that appear skew to

Name the lines containing point H that appear parallel to

Name a plane that is parallel to plane CDE and contains point H

BGH

In a plane, two lines are either

Parallel

* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Intersecting

* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

## Parallel Postulate

Parallel

one

If there is a line and a point not on the line, then there is exactly \_\_\_\_\_\_\_\_ line through the point \_\_\_\_\_\_\_\_\_\_\_\_  
 to the given line.

## Perpendicular Postulate

perpendicular

one

If there is a line and a point not on the line, then there is exactly \_\_\_\_\_\_\_\_ line through the point \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to the given line.

# Pairs of Angles

Transversal

2

6

1

4

3

5

8

7

two

coplanar

* Line that intersects \_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ lines

Interior **∠**

between

* angles that are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the lines
* **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

Exterior **∠**

outside

* angles that are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the lines
* **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

Alternate interior angles

opposite

* interior angles on \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ sides of the transversal
* **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

2

6

1

4

3

5

8

7

Alternate exterior angles

opposite

* exterior angles on \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ sides of the transversal
* **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

Consecutive interior angles

same

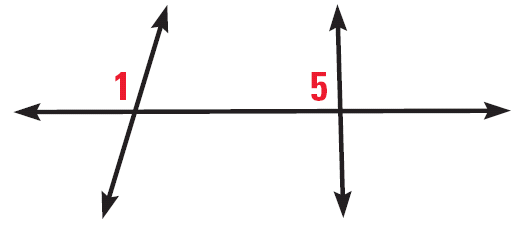
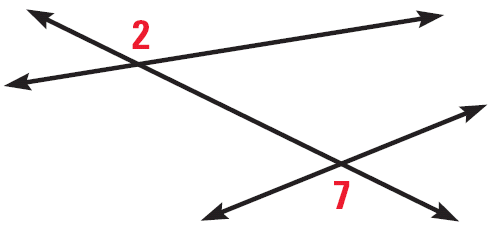
* interior angles on the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_side of the transversal
* **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

Corresponding angles

location

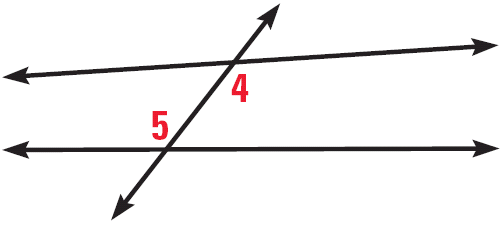
* angles on the same \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ relative to the transversal
* **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

Classify the pair of numbered angles

Alternate exterior

Corresponding



Alternate interior

Assignment: 150 #4-42 even, 45-49 all = 25 total