

Name: _____

Write your
questions here!

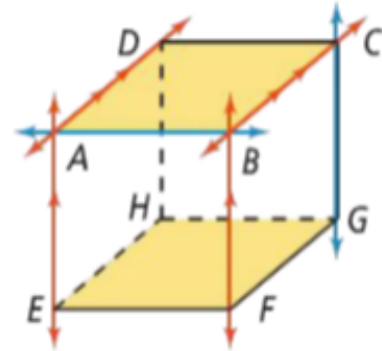


1.6 Lines & Angles

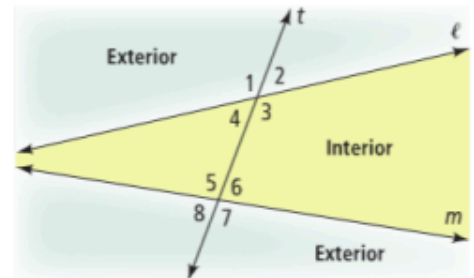
Parallel Lines:

Skew Lines:

Parallel Planes:



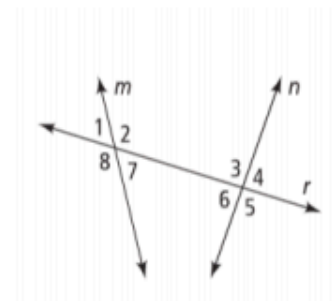
Transversal:



Alternate Interior Angles:

Same-side Interior Angles:

(a.k.a. Consecutive Interior)



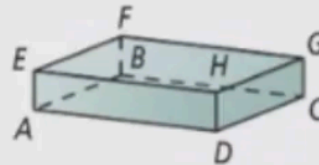
Corresponding Angles:

Alternate Exterior Angles:

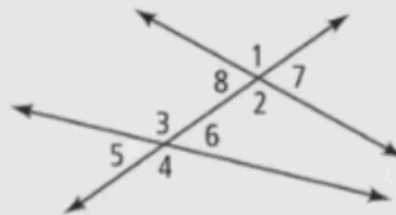
Try These!

Name one pair each of the segments, planes, or angles.
Lines and planes that appear to be parallel are parallel.

1. parallel segments
2. skew segments
3. parallel planes
4. alternate interior
5. same-side interior
6. corresponding
7. alternate exterior



Exercises 1–3



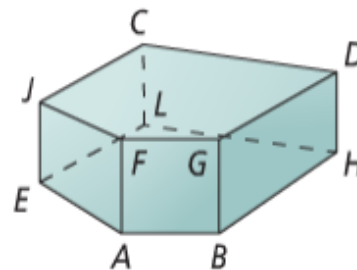
Exercises 4–7

Now,
summarize
your notes
here!

1.6 Practice Problems

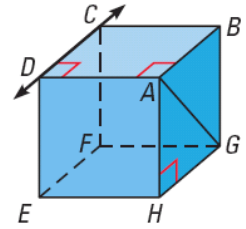
Directions: Use the diagram to name each of the following. Assume that lines and planes that appear to be parallel are parallel.

- 1) a pair of parallel planes
- 2) all lines that are parallel to \overleftrightarrow{AB}
- 3) all lines that are parallel to \overleftrightarrow{DH}
- 4) two lines that are skew to \overleftrightarrow{EJ}
- 5) all lines that are parallel to plane JFAE
- 6) a plane parallel to \overleftrightarrow{LH}



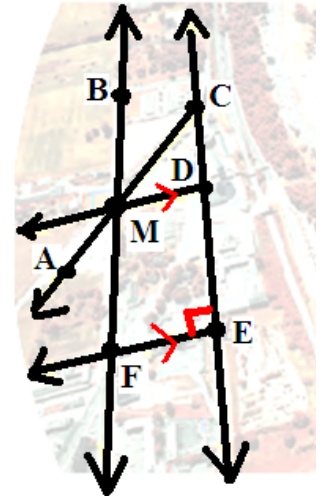
7. Think of each segment in the figure as part of a line. Which line(s) or plane(s) in the figure appear to fit the description?

- A.** Line(s) parallel to line CD and containing point A
- B.** Line(s) skew to line CD and containing point A
- C.** Line(s) perpendicular to line CD and containing point A
- D.** Plane(s) parallel to plane EFG and containing point A



8. The given line markings show how the roads are related to one another.

- A.** Name a pair of parallel lines.
- B.** Name a pair of perpendicular lines.
- C.** Is line FE parallel to line AC ? Explain.

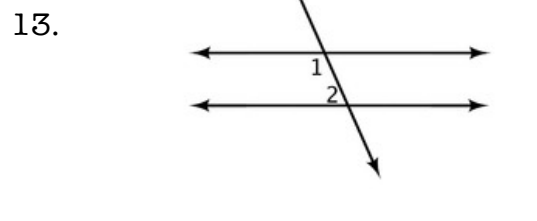
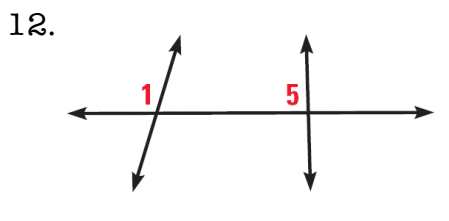
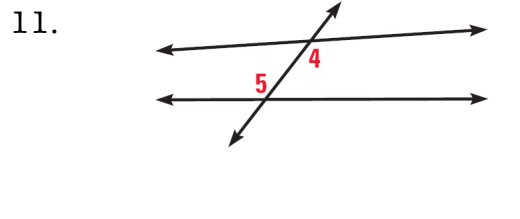
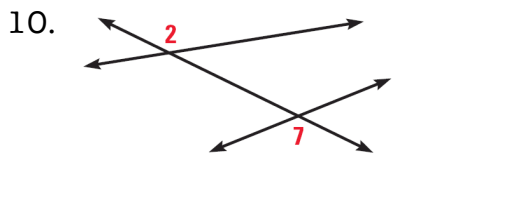


9. **TRUE or FALSE**

- T or F Two planes that do not intersect are parallel.
- T or F Alternate interior angles are on the same side of a transversal.
- T or F Two skew lines are coplanar.

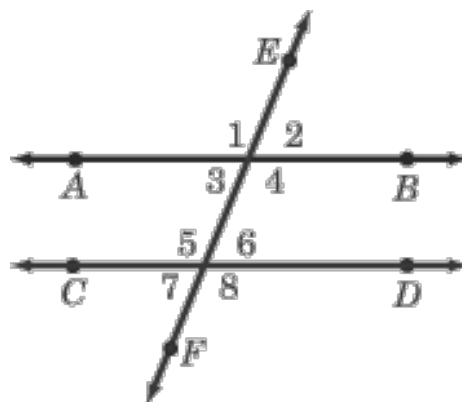
Classify the pair of numbered angles in each picture.

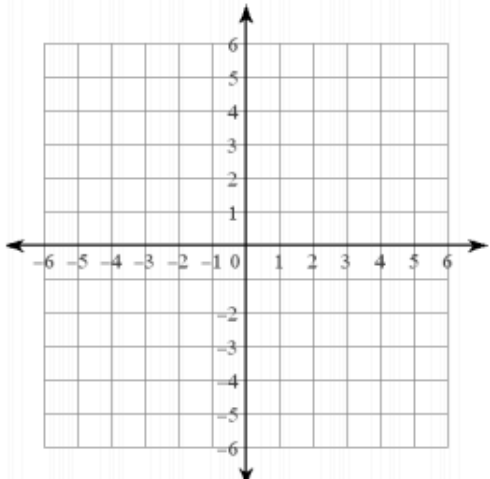
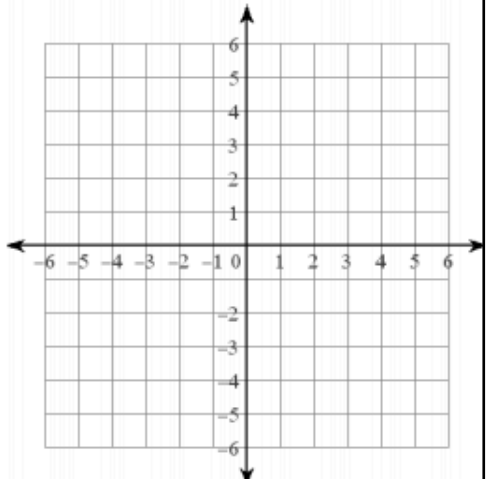
Corresponding, Vertical Angles, Alternate interior, Alternate exterior, Linear Pairs, or Consecutive interior (Same-Side Interior)



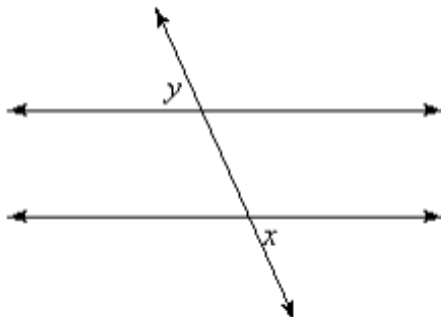
Follow the directions below using the diagram to the right.

14. Draw over the transversal line in red.
15. Name the transversal line.
16. Shade the interior region created by the two lines in yellow.
17. Shade the exterior regions created by the two lines.
18. $\angle 7$ and \angle ____ are vertical angles.
19. $\angle 7$ and \angle ____ are alternate exterior angles.
20. $\angle 3$ and \angle ____ are same-side interior angles.
21. $\angle 3$ and \angle ____ are alternate interior angles.
22. $\angle 6$ and \angle ____ are corresponding angles.
23. $\angle 6$ and \angle ____ are linear pairs.

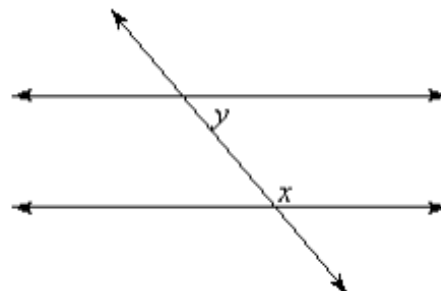


Algebra Review		
Solve: $-4 = \frac{x}{5} - 8$	Solve: $4x + 3 = 17$	Factor: $k^2 + 7k - 30$
Factor: $-7x^2 - 28x^2 + 42x$	Graph: $y = -\frac{5}{2}x - 2$ 	Graph: $y = \frac{5}{2}x - 4$ 

1) What type of angles are these?



2) What type of angles are these?



3) Graph the lines $y = x - 1$ and $y = x + 2$.

4) What type of relationship is there between the two lines?

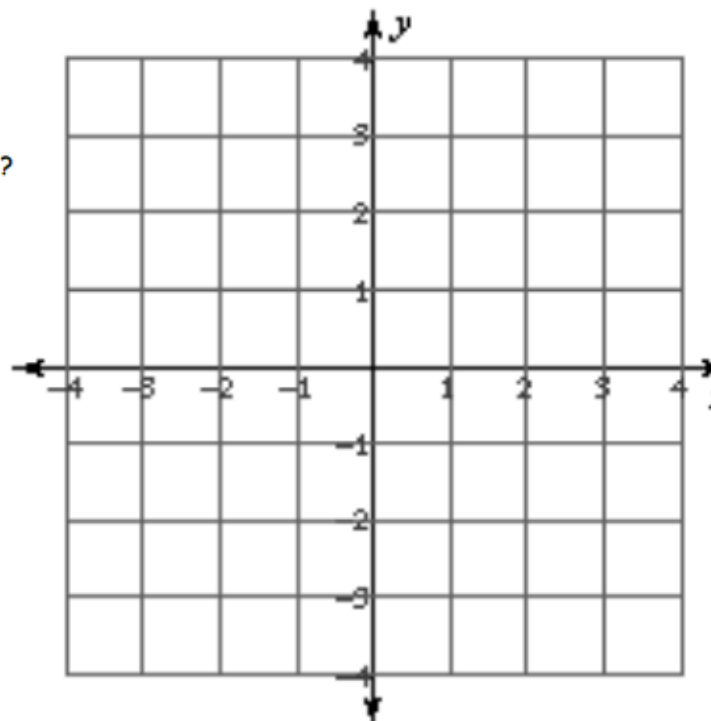
5) Prove your answer to #4.

6) Graph the equation $y = 1$ on the coordinate plane.

7) What line is a transversal in the graph?

8) Label all the angles formed by the transversal on the graph.

9) What pairs of angles are alternate interior angles?



10) Using a protractor, measure one pair of alternate interior angles. What do they measure?

11) Based on your evidence in #9 and #10 what do you think might be true about alternate interior angles when the transversal crosses parallel lines? Test it out on another pair of alternate interior angles. Does it work?

12) What pairs of angles are same-side interior angles?

13) Using a protractor, measure one pair of same-side interior angles. What do they measure?

14) Based on your evidence in #12 and #13, what do you think might be true about same-side interior angles when the transversal crosses parallel lines? Test it out on another pair of same-side interior angles. Does it work?