**Chapter 3 Test Review(2012-2013) Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

1. Identify the transversal and classify the angle pair and .



transversal \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

angle classification \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2. Given: line is parallel to line *n*



Fill-in the missing information in the table below. (note: all information is with reference to )



|  |  |  |
| --- | --- | --- |
| **Angle** | **Angle Measure** | **Theorem/Postulate** |
|  |  |  |
|  |  |  |
|  |  | Alt. Ext. Angle Thm. |
|  |  |  |

3. Give an example of corresponding angles, Alternate Interior angles, Same side interior angles and alternate exterior angles.



**Corr.**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**AIA**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**SS-Int.**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**AEA**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

4. Use the given information to answer the following questions and list which postulate or theorem justifies the statement.



**Given:**  and are supplementary





A. What type of angle pair are ?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

B. If and are supplementary,



and are supplementary what does that mean

about ? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

C. What does that mean about lines m & n? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

5. Given explain why . What postulate or theorem guarantees this?



6. Find m in the diagram. (Hint: Draw a line parallel to the given parallel lines.)



7. Use the information , and the theorems you have learned to show that .



8. Find in the diagram. (Hint: Draw a line parallel to the given parallel lines.)



9. Find m.



10. Draw two lines and a transversal. Label the angles in such a fashion to make 1 and 2 same-side interior angles, 2 and 3 corresponding angles, and 3 and 4 alternate exterior angles. What information is necessary to know that 1 and 2 are supplementary?



Tell whether the slope of each line is positive, negative, zero, or undefined.

|  |  |  |  |
| --- | --- | --- | --- |
| 1.  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | 2.  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | 3.  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | 4.  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

Use the slope formula to find the slope of each line.

5. with *L* at (0, 2) and *M* at (2, 3) 6. with *J* at (3, 3) and *K* at (4, 2)

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

Tell whether each pair of lines is parallel, perpendicular, or neither.

11. y = 3x + 6, y = -1x + 10 12.  with slope  and  with slope

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

Graph each pair of lines. Use slopes to determine whether the lines are parallel, perpendicular, or neither.

13. and for *F* (–1, 2), 14. and for *R*(–2, 3), *S*(3, 3),

*G* (3, –4),*H* (–2, –3), and *J*(4, 1) *T*(–3, 1), and *U*(3, –1)



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

15. Draw . Construct the perpendicular bisector of the segment and label it C.

16. Draw a line EF. Draw a point G not on the line. Construct a line through G parallel to line EF.