**PARALLEL AND PERPENDICULAR LINES TEST REVIEW**

**Define each of the following terms:**

|  |  |
| --- | --- |
| Transversal |  |
| Perpendicular Bisector |  |
| Slope |  |
| Point Slope Form |  |
| Slope Intercept Form |  |
| Parallel slopes/lines |  |
| Perpendicular slopes/lines |  |

**Draw an example of each of the following types of angle pairs and write *the mathematical relationship* between the two angles:**

|  |  |
| --- | --- |
| **Corresponding Angles:** | **Alternate Interior Angles:** |
|  |  |
| **Alternate Exterior Angles:** | **Same-Side Interior Angles:** |
|  |  |
| **Vertical Angles:** | **Linear Pair:** |
|  |  |

Using the figure below, identify the angle pairs as **congruent, supplementary,** or **neither.**

**Given:**

 **1.** and

3

1

2

4

5

6

7

8

9

10

11

13

12

l

m

 **2.** and

 **3.** and

 **4.**  and

 **5.**  and

 **6.**  and

 **7.** and

D

C

**Use the graph of to answer questions 8-10.**

**8.** Write the equation of the line in the picture in **point-slope form**.

**9.** Write the equation of a line parallel to the original in
**Slope-intercept form** through the point (2, -4).

**10.** Write the equation of a line perpendicular to the original that goes through the point (-1, 4) in **point-slope form**.



**11.** Use the graph to the right to graph the line

**12(a).** Determine the **slope** of the line containing points *A*(5, –3) & *B*(-2, 7). Show work either on the graph or by using slope formula.

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

**12(b)**. **Write the equation** of the above line in ***point-slope form*.**

**12(c).** What is the slope of a line that is perpendicular to the one above?

**12(d).** What is the **equation of a line** perpendicular to the original line & passes through the point (2, -3)?

**12(e).** What are the coordinates of the midpoint in between the original two points?

**12(f).** What is the **equation of the perpendicular bisector** of the segment formed by the original two points?

**13.** What is the equation of the line in **slope-intercept form** that is parallel to the line through the point (-5, -3)?

**14.** The graph of a line is shown. If the y**-intercept is cut in half** and the **slope remains the same**, which equation represents the new line?

x

y

A. y = 2x – 6 C. y = - x + 2

B. y = - 2x – 3 D. y = - x + 1

**15.** Given , , and , are and parallel, perpendicular, or neither?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**For problems 16-19 find the measure of the given angle:**

**16.** \_\_\_\_\_\_\_\_\_\_\_ **17.** \_\_\_\_\_\_\_\_\_\_

F

E

D

**18.** \_\_\_\_\_\_\_\_\_\_\_ **19.** \_\_\_\_\_\_\_\_\_\_\_

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

AA

B

G

D

C

E

A

G

D

F

B

C





20.

21.

22.