

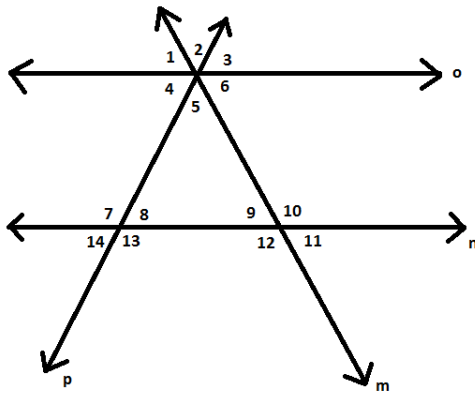
Name: _____
 Date: _____
 Class: _____

Geometry
 Review
 Graded Homework 2

Show all of your work for every problem. The numbers in the brackets are the points that each problem is worth.

1) [3] Write the equation of a line that is perpendicular to a 2nd line. The 2nd line passes through (-2, 4) and (3, -5). The new line passes through (4, 6).

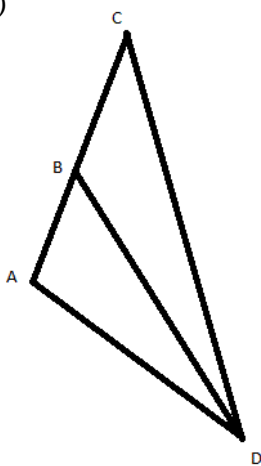
2)



If $m\angle 3 = 57^\circ$, $m\angle 5 = 68^\circ$, and $m\angle 11 = 55^\circ$ is $\vec{n} \parallel \vec{o}$ (provide reasons)?

3) Using the diagram for #2 – if $\vec{n} \parallel \vec{o}$, $m\angle 3 = 5x - 3$, $m\angle 6 = 4x + 6$, and $m\angle 1 = 6x - 18$ find $m\angle 14$ (provide reasons).

4)



If \overline{DB} bisects $\angle ADC$ and $m\angle ADB = 2x + 3$ while $m\angle ADC = 6x - 13$, find $m\angle BDC$ [3]

5) [4] If $A(2x, 3x + 2)$ and $B(5x, 4x + 4)$ find AB

6) [3] Using the coordinates from #5, find the midpoint of segment AB

7) [3] Using the coordinates from #5, state the slope of a line that would be perpendicular to the line that passes through A and B.

8) [4] Solve using complete the square: $2x^2 - 6x = 27$