Name: _____ Geometry
Date: _____ Unit 1/2
Class: _____ Extra Credit

To be eligible to receive extra credit on the unit test you must have a score below 75. To receive extra credit you must score an 80% or higher on this assignment (anything lower results in no extra credit). If you earn extra credit is calculated in the following manner: Old Test Score + (75 – Old Test Score)(2/3) = New Test Score. This assignment will not be accepted late for any reason other than missing the day of school it is due in which case it must be turned in the next day you are in school even if you do not have class.

1) [4] Solve by completing the square: $3x^2 - 7x = 10$

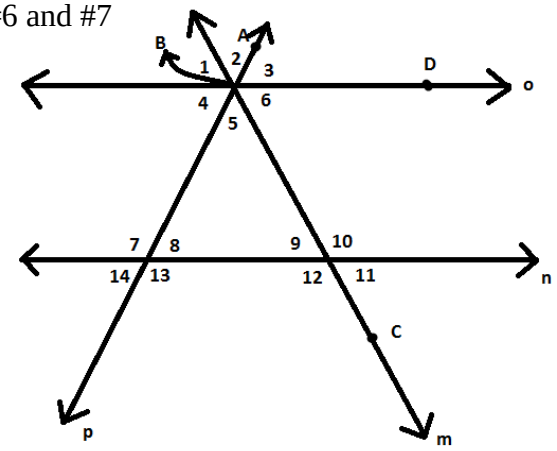
2) [3] If $\overline{AC}$ has midpoint Q and AQ = $x^2 - 2x + 3$ and AC = 10x – 6. Find QC which must be over 10.

3) [4] Find the equation of a perpendicular bisector to a line segment with endpoints (-3,-1) and (5,8).

4) [2] Find the midpoint of the segment with the following endpoints (2x – 2, 3x +2) and (4x +2, 6x + 1)

5) [3] Find the slope of a line that would be perpendicular to another line the passes through (2y – 4, 3y – 2) and (4y – 1, 2y – 3).

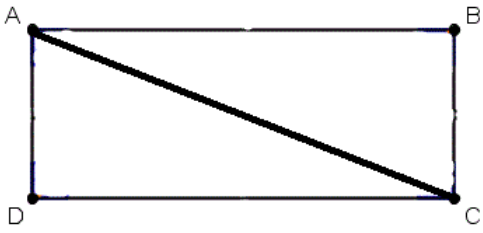
Use for #6 and #7



6) [3] If $\overrightarrow{BD}$ bisects <ABC, m<3 = 4x + 6, m<9 = 10x – 56, and m<6 = 6x – 15 are lines n and o parallel and how do you know?

7) [3] If lines n and o are parallel and the following is true: m<2 = 8x – 1, m<4 = 12x – 13, and m<12 = 16x + 11, find m<5 and provide reasons for any equations you use or any angles you relate to each other.

8) [3]



If m<BAC = $x^2 - x$, m<CAD = 6x +4, and m<BAD = 10x + 18. Find m<BAD