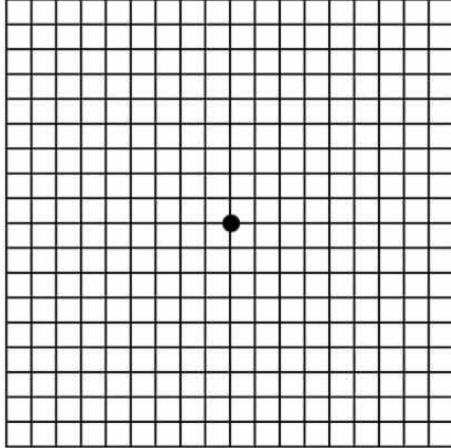


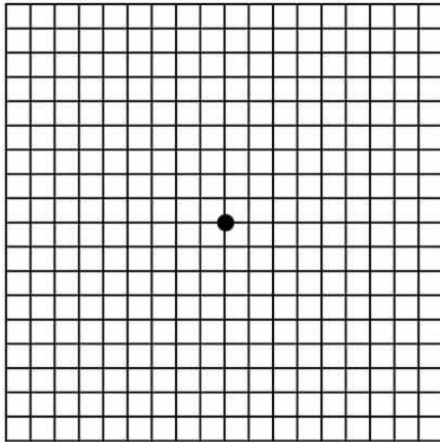
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Date: _____
Class: _____

Geometry
Unit 1/2
PS

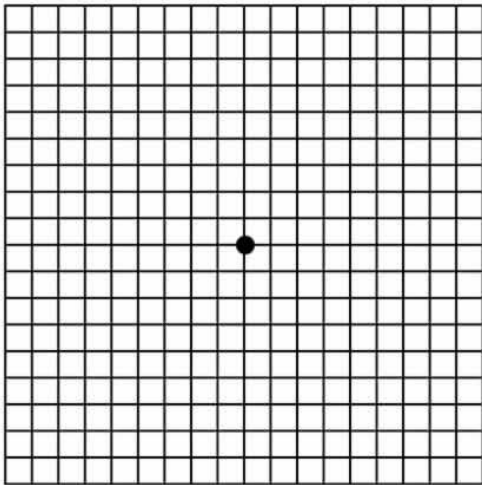
1) Write the equation of a line \perp to the line $y = -3x + 1$ passing through $(3, 3)$ [3]



2) Write the equation of the perpendicular bisector of $(3, 4)$ and $(7, 2)$ [4].



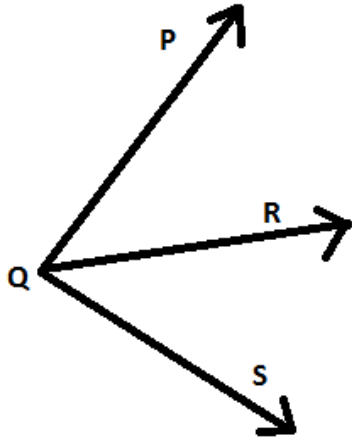
3) If the endpoints of \overline{XM} are $(6, 4)$ and $(11, 16)$ find XM [3].



4) Find the midpoint of the segment in #3 [2]

5) \overline{DW} is a segment with midpoint Q. If D is (-1, -4) and Q is (4, 0) find W [2]

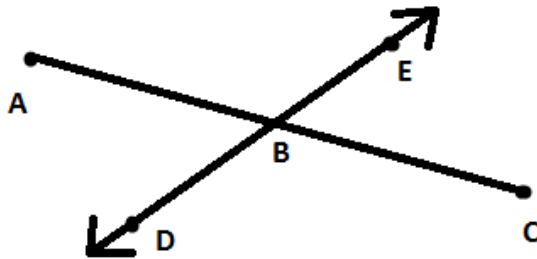
6)



\overline{QR} bisects $\angle PQS$

If $m\angle PQR = 3x + 10$ and $m\angle PQS = 5x + 27$
Find and explain $m\angle RQS$ [3]

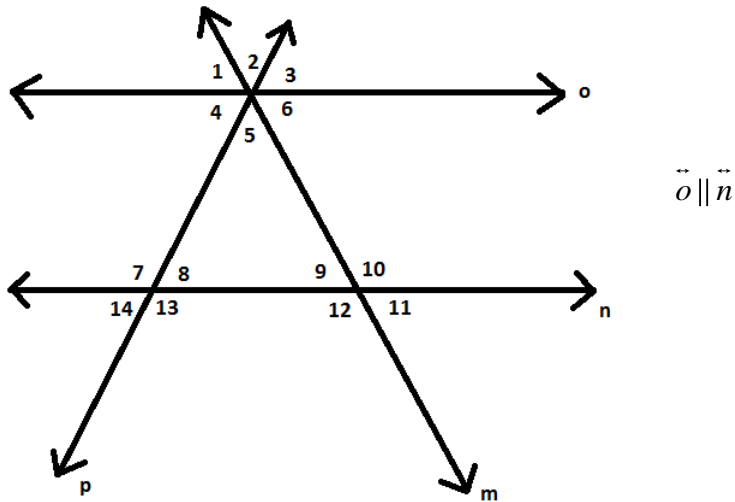
7) If $AB = x - 3$ and $BC = 3x - 31$ find AC [3]



\overline{DE} bisects \overline{AC}

8) If a line passes through (-4, 5) and (1, -2) find the equation of a line that is parallel to this line and passes through (1, -3) [3].

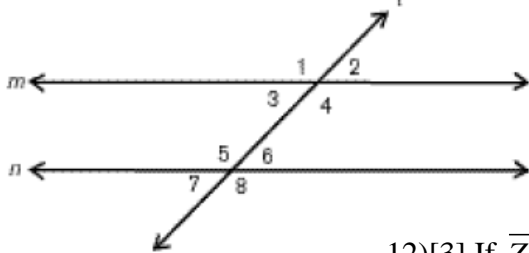
Use this diagram for 9 and 10



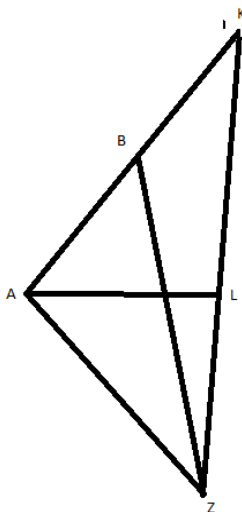
9) [3] If $m\angle 1 = 2x - 3$ and $m\angle 9 = 3x - 20$, find $m\angle 10$ and explain

10) [3] If $m\angle 4 = 6x - 3$, $m\angle 5 = 6x + 12$, and $m\angle 6 = 6x + 9$, find $m\angle 11$ and explain

11) [3] If $m\angle 4 = 110^\circ$ and $m\angle 6 = 70^\circ$ is $\vec{m} \parallel \vec{n}$?



12) [3] If \overline{ZB} bisects \overline{AK} and the following is true find ZB.
 $KB = 2x + 1$, $KA = 5x - 9$, and $ZB = 4x - 7$

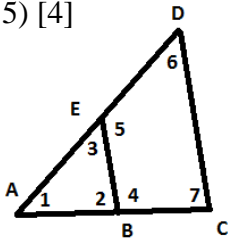


13) [3] If \overline{AL} bisects $\angle KAZ$ and the following is true find $m\angle AKZ$ and justify your answer.

$m\angle KAL = 8x - 12$, $m\angle ZAL = 6x + 1$, and
 $m\angle AKZ = 10x$

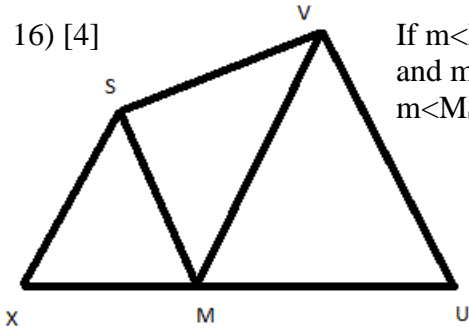
14) [3] Solve using complete the square: $4x^2 - 13x + 12 = 0$

15) [4]



If $AE = 2x - 5$, $DC = 4x + 6$, $AD = 6x - 29$, and $ED = 2x - 1$
Find BE. ($DC:BE = 5:2$)

16) [4]



If $m\angle XSM = x^2 - x - 10$, $m\angle MSV = x^2 + 2x - 22$,
and $m\angle XSV = 10x + 24$, find and explain how much larger
 $m\angle MSV$ is than $m\angle XSM$.

17) [3] If segment RI has endpoints $(-2, -5)$ and $(18, 11)$, find point S so that
 $RS:SI = 3:5$