Geometry (E) Name: _____ Period: ____

Geometry Segment Addition, Midpoint, Bisectors

Make a sketch and solve for the lengths indicated.

1.	Points A, B and C are collinear, where B is between A and C. **AC = 4*x*+11, AB = 3*x*+ 4, BC = 2*x*–5. Find AB, BC and AC.**			
		AB =	BC =	AC =
2.	Points A, B, C and D are collinear, where B is between A and C and C is between B and D. **AB = *x*, BC = 2*x*+4 , CD = 3*x*–9 and AD = 46. Find AB, BC, CD,AC, and BD.**			
		AB =	BC =	CD =
		AC =	BD =	
3.	H is the midpoint of GK. **GH= 3*x*+1, GK= 26. Find GH, HK and GK.**			
		GH =	HK =	GK =
4.	Point E ***bisects*** segment DF. **DE = *x*+6, EF = 2*x*+8. Find DE, EF, and DF.**			
		DE =	EF =	DF =

5.	M is the ***midpoint*** of LN. **LM = x^2, MN = 6x+7. Find the two possible lengths of LM, MN and LN.**			
		Possible Lengths #1		
		LM =	MN =	LN =
		Possible Lengths #2		
		LM =	MN =	LN =
6.	Line segment PT is ***trisected*** at points R and S. **RS = 4x+5 and PT = 42.** **Find PR, RS, ST, PS, and RT.**			
		PR =	RS =	ST =
		PS =	RT =	
7.	In Triangle GFK, a ***median*** is drawn from angle F and intersects side GK at point H. **GH = 7x +1 and GK = 8x+28** **Find GH, HK and GK**			
		GH =	HK =	GK =