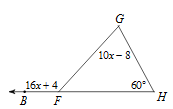
**Analytic Geometry**

**FBM #2 Study Guide**

**Chapters 1-9**

Geometry FBM#2 – # of questions by topic

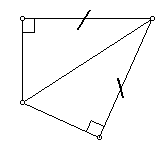
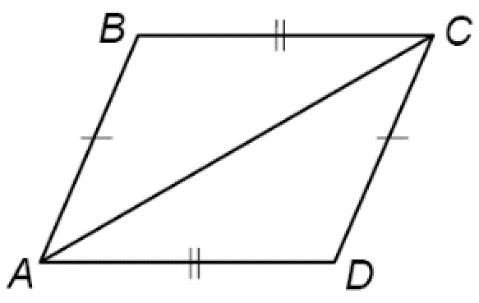
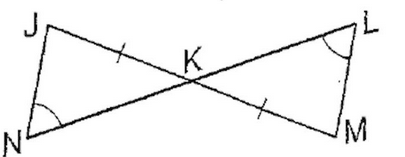
1. Properties 🡪 1
2. Parallel lines (chapter 3) 🡪 1
3. Congruent Triangles(chapters 4-5) 🡪 3
4. Angles in a triangle 🡪 3
5. Perpendicular/Angle Bisectors 🡪 1
6. Parallelograms (chapter 7) 🡪 6
7. Midsegment of a triangle 🡪 1
8. Transformations 🡪 1
9. Similar Triangles and proportional parts (chapter 8) 🡪 4
10. Right Triangle trig (chapters 9-10) 🡪 4
11. **TP = TP**
12. **If and , then .**
13. **If x = 8, then 8 = x.**
14. **If 3x = 90, then x = 30.**
15. **If , then .**
16. **The measures of the angles of a triangle are m< A = 3x + 4, m<B = 2x and m<C = 5x – 24. Solve for x and m<C**
17. **Find**



1. **Given: ∆ RGA and ∆PMC with , , and . Which method could be used to prove that ∆ RGA ∆PMC? (Hint: Draw a picture)**

**a. SSS b. SAS c. HL d. ASA e. Not enough info.**

**Determine if the triangles are congruent. MARK your diagrams! If so, write a congruency statement AND state the method of proving them congruent. If not, write “no congruence”.**

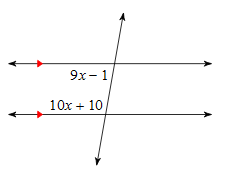
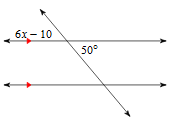
1.  **11.**  **12.** 

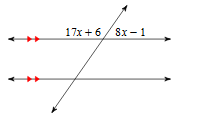
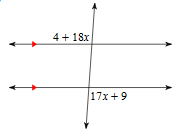
B

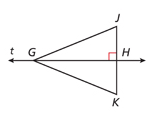
C

D

A

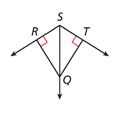
13.  14. ****

15. **** 16. 

****

**17. Given that line t is the perpendicular bisector of and GK = 8.25, find GJ**

**18. Given that line t is the perpendicular bisector of , JG = x + 12 and KG = 3x – 16, and JH = x-7, find KG and JH.**

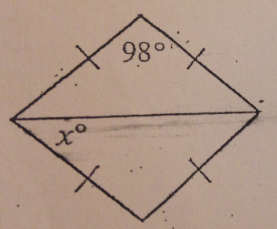
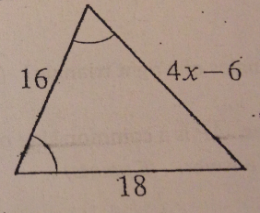
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**19. Given that GJ = 70.2, JH = 26.5, and GK = 70.2, find JK.**

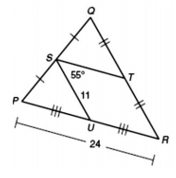
**20. Given that and TQ = 1.3, find QR**

**21. Given that , RQ = 49 and TQ = 49, find**

**For problems 22-23, find the value of x.**

**22.**   **23.**  

**Use the given diagram to answer questions 24 - 26.**

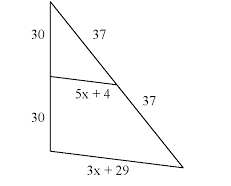
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1. **ST =**

1. **PU =**

1. **QR =**

**27. Solve for x.**

****

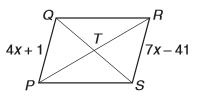
**#’s 28-30 List the additional properties of the diagonals of the following parallelograms**

**28. Rectangle**

**29. Rhombus**

**30. Square**

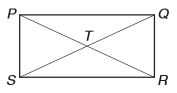
**PQRS is a parallelogram. PT = 47, PS = 70, m<SPT = 20⁰, and m<QRS = 66⁰. Find each of the following measures.**

**31. RT 32. m < RSP** 

**33. QR 34. If PT = 2x and PR = 6x-1, find PT**

**35. m < QPT 36. RS**

**PQRS is a rectangle. PQ = 44, PR = 72, Find each of the following measures**

****

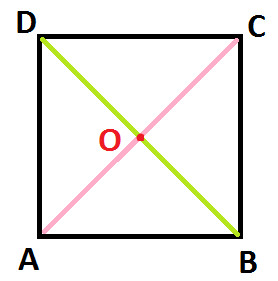
**37. SR 38. m < PSR 39. TQ 40. m < QRP**

**CDEF is a rhombus. Find each of the following measures.**

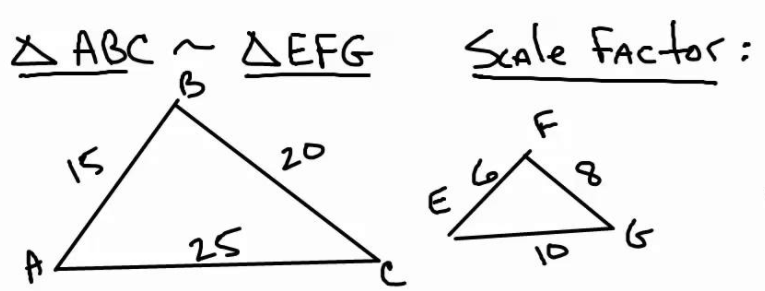
|  |  |
| --- | --- |
|  | 1. **x** 2. **EF** 3. **y** 4. **m<EFC** |

**Given square ABCD**

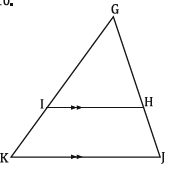
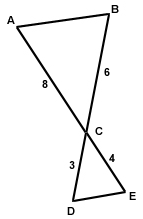
1. **If m< ABC = 6x-2, solve for x**
2. **If m<ADO = 8x+5, solve for x**
3. **If AB = x-5 and DC = 2x-7, Find BC**



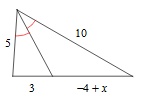
**48. The scale factor ∆AEB to ∆DEC is 5:2. If DE = 7, then AE = ?**

**49. Find the scale factor:** 

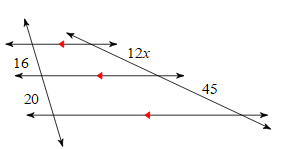
**Determine if the triangles are similar. List the parts, the postulate or theorem used, and if similar, write a similarity statement. If not similar, show enough work to prove why.**

**50.** **51.** 

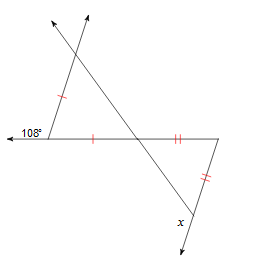
1. **Find the value of x.**
2. **Find x**



**54. Solve for x.**



**55. Solve for x.**



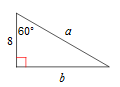
**56. Write the following formulas**

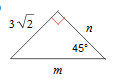
* 1. **Pythagorean Theorem (Right Triangle)**

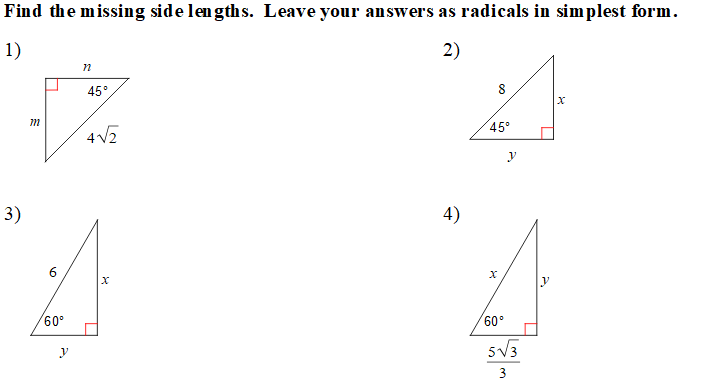
* 1. **45-45-90**

* 1. **30-60-90**
  2. **Trig Ratios**

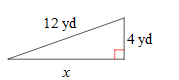
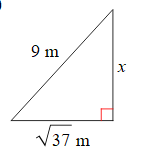
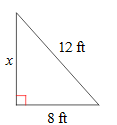
**57. Find the missing sides. 58. Find the missing sides.**







1. **Find the missing side in simplified radical form**



**Express answers as a ratio and a decimal.**

**64. 65. 66.**

