

**HONORS GEOMETRY**  
(Fall Final Exam Review Sheet)

I. General Information

- A. Covers material from Chapters 1 through 6
- B. Format
1. 50-multiple choice questions (1 point each):  
Ch1 (11), Ch 2 (4), Ch 3 (14), Ch 4 (6), Ch 5 (7), Ch 6 (8)
  2. 2-Constructions (2 points each)
  3. 1- Congruent Triangle Proof (6 points)
- C. Importance
- Curved grade counts 20% of your semester grade

II. Study Strategy

- A. Determine Wants/Needs
- B. Review Terms, Facts and Formulas
1. Notes
  2. Pp. 732-736 and P. 740
  3. Webpage *Flashcards* (<https://lawrencenorth.ltschools.org/teachers/dfrankum/>)
- C. Practice Solving Problems
1. Chapter *Review Problems*
  2. Cumulative Reviews (See Part III)
  - ➔ 3. Constructions and Proofs (See Part IV)

III. Answers to Cumulative Reviews

|     | <b>P. 109</b>  | <b>P. 237</b>         | <b>P. 343</b> |
|-----|----------------|-----------------------|---------------|
| 1.  | B              | B                     | C             |
| 2.  | G              | G                     | I             |
| 3.  | A              | B                     | A             |
| 4.  | G              | I                     | G             |
| 5.  | C              | A                     | C             |
| 6.  | H              | I                     | I             |
| 7.  | A              | D                     | A             |
| 8.  | G              | B                     | B             |
| 9.  | C              | 54.5                  | B             |
| 10. | I              | 31.4                  | 7.5           |
| 11. | C              | 34                    | 88            |
| 12. | D              | 145                   | $x = 8$       |
| 13. | B              | skip                  | $(-4, 2)$     |
| 14. | B              | skip                  |               |
| 15. | B              | CD = 13, Mid (7.5, 1) |               |
| 16. | 6.32           |                       |               |
| 17. | 45             |                       |               |
| 18. | a. (6,2) b. 10 |                       |               |
| 19. | skip           |                       |               |

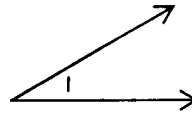
IV. Constructions and Proofs

A. Basic Constructions

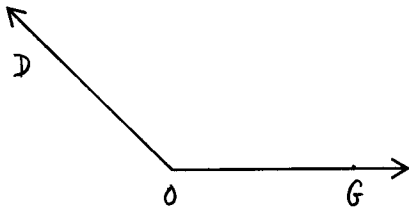
1. Construct  $AB$  such that  $AB = 2a - b$



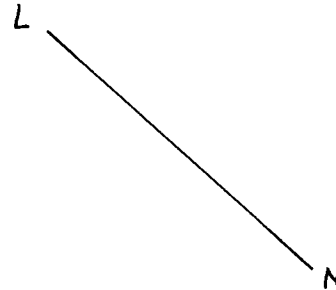
2. Construct  $\angle ABC$  such that  $m\angle ABC = 2(m\angle 1)$



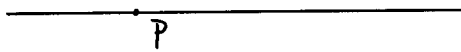
3. Bisect  $\angle DOG$ :



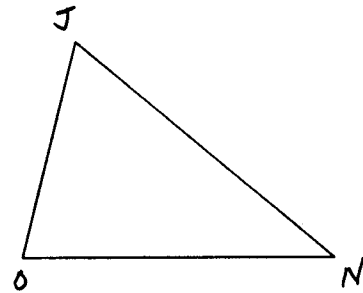
4. Construct the perpendicular bisector of  $LN$ :



5. Construct a perpendicular through  $P$ :

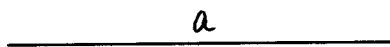


6. Construct the 3 altitudes of  $\triangle JON$ :

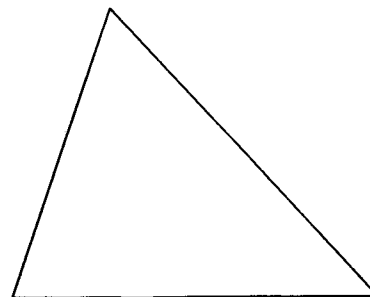


B. Applied Constructions

1. Construct an equilateral triangle with perimeter  $3a$ .



2. Construct the centroid:



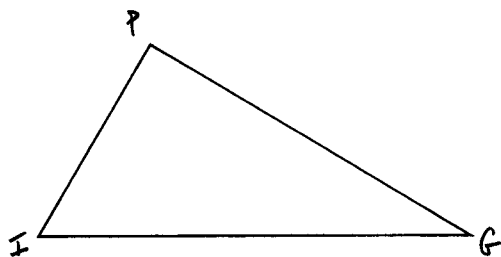
3. Construct and label the following angles

a.  $30^\circ$

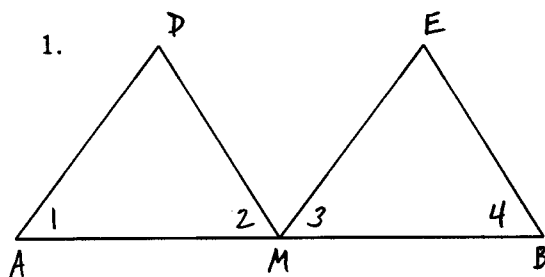
b.  $120^\circ$

c.  $45^\circ$

4. Use the ASA method to construct a triangle construct to  $\triangle PIG$ :



C. Proofs

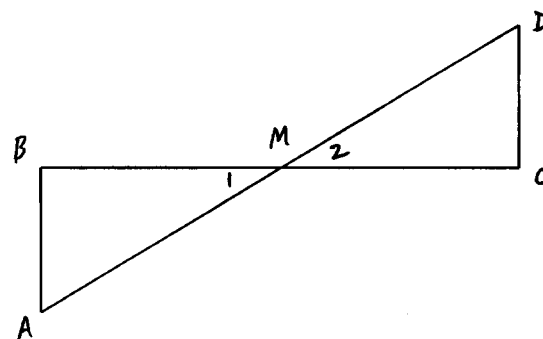


**Given** M is the midpoint of  $\overline{AB}$

$\overline{AD} \parallel \overline{ME}$ ,  $\overline{MD} \parallel \overline{BE}$

**Prove**  $MD = BE$

2.



**Given** M is the midpoint of  $\overline{AD}$

$\overline{AB} \perp \overline{BC}$ ,  $\overline{DC} \perp \overline{BC}$

**Prove**  $AB = DC$

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