


HONORS GEOMETRY

(Spring Final Exam Review Sheet)

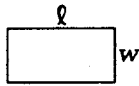
I. General Information

- A. Covers material from Chapters 7 through 11
- B. Format
50-multiple choice questions (1 point each):
Ch 7 (16), Ch 8 (8), Ch 9 (4), Ch 10 (12), Ch 11 (10)
- C. Importance
Curved grade counts 25% of your semester grade
- D. Formulas Provided:

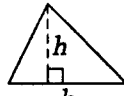
Reference Information



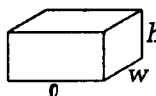
$A = \pi r^2$
 $C = 2\pi r$



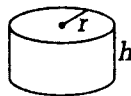
$A = lw$



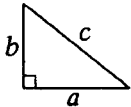
$A = \frac{1}{2}bh$



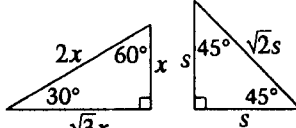
$V = lwh$



$V = \pi r^2 h$



$c^2 = a^2 + b^2$



Special Right Triangles

The number of degrees of arc in a circle is 360.
 The measure in degrees of a straight angle is 180.
 The sum of the measures in degrees of the angles of a triangle is 180.

II. Study Strategy

- A. Determine Wants/Needs
- B. Review Terms, Facts and Formulas
1. Notes
 2. Pp. 736 – 739
 3. Webpage *Flashcards* (<https://lawrencenorth.ltschools.org/teachers/dfrankum/>)
- C. Practice Solving Problems
1. Chapter *Review Problems*
 2. *Extra Practice Problems* (See Part III)

III. Answers to *Extra Practice* Problems

Chapter 7 (P. 696)

- | | | |
|--|--|---|
| 1. $P = 15$ ft, $A = 10.825$ ft ² | 2. $P = 16$ m, $A = 12$ m ² | 3. $P = 50$ ft, $A = 143$ ft ² |
| 4. $P = 47$ m, $A = 102$ m ² | 5. 15 | 6. $5\sqrt{3}$ |
| 7. $3\sqrt{5}$ | 8. $3\sqrt{2}$ | 9. 72 cm ² |
| 10. 15 in ² | 11. $25\sqrt{3}/4$ mm ² | 12. $32\sqrt{3}$ ft ² |
| 13a. 6π cm | 13b. 2π cm | 14a. 20π ft |
| 14b. $5\pi/3$ ft | 15a. 18π cm | 15b. $9\pi/2$ cm |
| 16a. 10π in | 16b. $25\pi/4$ cm | 17. $49\pi/3$ ft ² |
| 18. $(12\pi - 9\sqrt{3})$ in ² | 19. $81\pi/8$ cm ² | 20. $(4\pi - 8)$ m ² |
| 21. $1/4$ | 22-24) skip | |

Chapter 8 (P. 697)

- | | | |
|--------------------------------|---|--|
| 1. 10 | 2. 36 | 3. 2 |
| 4. 6 | 5. $9/2$ | 6. 21 |
| 7. $x = 80/3, y = 6, z = 16/3$ | 8. $x = 3\sqrt{10}/5, y = 2\sqrt{10}$ | 9. $x = 30, y = 4$ |
| 10. $x = 12, y = 8$ | 11-13) skip | 14. $x = \sqrt{5}, y = 2, z = 2\sqrt{5}$ |
| 15. $x = 117/10$ | 16. $x = 65, y = 60, z = 156$ | 17. $x = 4$ |
| 18. $x = 72/5$ | 19. $x = \sqrt{70}, y = \sqrt{21}, z = \sqrt{30}$ | |
| 20. $x = 20$ | 21. $x = 56/3$ | 22. $P = 5:8, A = 25:64$ |
| 23. $P = 3:4, A = 9:16$ | 24. $P = 5:16, A = 25:256$ | |

Chapter 9 (P. 698)

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|---|--|---|
| 1. $x = 5.6$ | 2. $x = 29$ | 3. $x = 11.0$ |
| 4. $x = 9.4$ | 5. $x = 49$ | 6. $x = 50$ |
| 7. $x = 7.2$ | 8. $x = 49$ | 9. 653 ft |
| 10. 139 ft | 11. 78 ft | 12. 2000 ft |
| 13a. $\langle -49, 142 \rangle, \langle 38, 47 \rangle$ | 13b. $\langle -11, 189 \rangle$ | 14a. $\langle -118, -55 \rangle, \langle 86, 110 \rangle$ |
| 14b. $\langle -32, 55 \rangle$ | 15a. $\langle -54, 72 \rangle, \langle -95, -33 \rangle$ | 15b. $\langle -149, 39 \rangle$ |

Chapter 10 (P. 699)

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|---|--|--|
| 1. cube | 2. triangular prism | 3. cylinder |
| 4. rectangular prism | 5-8) skip | 9b. 108 ft^2 |
| 10b. $36\pi \text{ cm}^2$ | 11b. $56\pi \text{ in}^2$ | 12b. $144\sqrt{3} \text{ in}^2$ |
| 13. 16 mm^3 | 14. 175 mm^3 | 15. $15\pi \text{ m}^3$ |
| 16. $45\pi \text{ in}^3$ | 17. $500\pi/3 \text{ cm}^3, 100\pi \text{ cm}^2$ | 18. $36\pi \text{ ft}^3, 36\pi \text{ ft}^2$ |
| 19. $256\pi/3 \text{ in}^3, 64\pi \text{ in}^2$ | 20. $4\pi/3 \text{ ft}^3, 4\pi \text{ ft}^2$ | 21. $\pi/6 \text{ in}^3, \pi \text{ in}^2$ |
| 22. $243\pi/2 \text{ m}^3, 81\pi \text{ m}^2$ | 23. $256\pi/3 \text{ m}^3$ | 24. $32\pi/3 \text{ in}^3$ |
| 25. $343\pi/6 \text{ ft}^3$ | 26. $A = 4:9, V = 8:27$ | 27. $R = 5:8, V = 125:512$ |
| 28. $R = 3:4, A = 9:16$ | | |

Chapter 11 (P. 700)

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|---------------------------------------|----------------------------|----------------------------------|
| 1. $x = 65$ | 2. $x = 10$ | 3. $x = 6$ |
| 4. $x = 2\sqrt{3}$ | 5. $x = 2\sqrt{55}$ | 6. $x = 3\sqrt{3}$ |
| 7. $x = 2\sqrt{7}$ | 8. $x = 20$ | 9. $a = 154, b = 76$ |
| 10. $a = 38, b = 52, c = 104, d = 90$ | | 11. $a = 105, b = 100$ |
| 12. $a = 55, b = 72, c = 178, d = 89$ | | 13. $x = 193, y = 60.5$ |
| 14. $x = 5.6$ | 15. $x = 6\sqrt{3}$ | 16. $x = 70$ |
| 17. $x = 112.5, y = 67.5$ | 18. $x = 11.5$ | 19. $x = 42.5$ |
| 20. $x = 39/7, y = 83/7$ | 21. $x^2 + y^2 = 16$ | 22. $x^2 + (y - 5)^2 = 9$ |
| 23. $(x - 9)^2 + (y + 3)^2 = 49$ | 24. $(x + 4)^2 + y^2 = 37$ | 25. $(x + 6)^2 + (y + 2)^2 = 13$ |
| 26. $(x + 1)^2 + (y + 3)^2 = 9$ | 27-29) skip | |