

Math 213, Exam THREE Review

Exam THREE is an in-class exam given on Tuesday June 2, 2009

- For Exam THREE you should study your assigned homework, the examples in our textbook and the class activities we have done in class for §11.1, §11.2 and §11.3
- Exam Three is a mix of true-false, multiple choice and short answer questions that include working with translations, rotations, reflections, triangle congruence, similarity, tessellations and compass and straightedge constructions.
- You may use your personal manipulative kit, ruler, compass and calculator during the exam.
- You will need to use a compass during the exam.
- You may not use a cell phone during the exam.
- You may use both sides of one 3" x 5" card of notes on this exam

CONCEPTS TO KNOW

- All of the Chapter 11 Review Items, page 801

REVIEW PROBLEMS

Practice problems: Chapter 11 Test, pages 802-804

1 – 6, 8, 11 - 16

I will feel free to draw from all assigned homework & class activities!

Pay particular attention to:

- All of your text and Activity Book Follow Up homework
- All of the Chapter 11 vocabulary terms
- §11.1 compass activity (constructions from book); you will be asked to do a few constructions on the exam
- §11.1 triangle activity; you will be asked to use triangle congruence relationships on the exam
- Activity Sets: §11.1, §11.2 and §11.3

Study Ideas

- Work problems from the text and the activity book; don't just read over already done work. The more problems you can work, the more confident you will be during the exam.
- Work through the True/False problems on the next page.
- Work with a study group, discuss ideas.

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True & False: Determine if each of the following is true or false. In each case, explain your answer in detail, correct the question if it is false and try to create / find a similar question from class notes / texts to practice the stated (or corrected) techniques or ideas.

1. All triangles are similar.
2. All quadrilaterals are similar
3. All rectangles are similar.
4. All rhombi are similar.
5. All regular hexagons are similar.
6. Any pair of similar triangles are also congruent
7. Any pair of congruent triangles is also similar.
8. All equilateral triangles are similar.
9. All right triangles are similar.
10. All triangles with the two angle measures the same and any one side the same length are similar.
11. All triangles with the same three angle measures are similar.
12. If a rectangular pyramid is scaled by a factor of 2, the surface area increases by a factor of 2.
13. If a rectangular pyramid is scaled by a factor of 3, the volume increases by a factor of 27.
14. ASA is a triangle congruence relationship.
15. SAS is a triangle congruence relationship.
16. AAS is a triangle congruence relationship.
17. SSA is a triangle congruence relationship.
18. SSS is a triangle congruence relationship.

19. AAA is a triangle congruence relationship.
20. You can bisect an angle using only a compass and a straightedge.
21. You can bisect a line using only a compass and a straightedge.
22. You can construct a perpendicular bisector to a line using only a compass and a straightedge.
23. You can copy angles using only a compass and a straightedge.
24. You can copy line segments using only a compass and a straightedge.
25. You can construct an equilateral triangle using only a compass and a straightedge.
26. You can construct a rhombus using only a compass and a straightedge.
27. You can create a tessellation template starting with an equilateral triangle using at least two tessellation techniques.
28. You can create a tessellation template starting with a parallelogram using at least two tessellation techniques.
29. You can sketch the reflection image of any shape given a line of reflection.
30. You can sketch the rotation image of any shape given a center of rotation and the degree of the rotation.
31. You can sketch the glide reflected image of any shape given a center of rotation and line of reflection.
32. You can sketch a scaled image of any shape given a projection point and scale factor.
33. All reflection images are created by reflecting across a vertical line.
34. The ratio of corresponding sides on similar polygons is constant.
35. The ratio of corresponding sides on similar triangles is constant.
36. You are an expert at finding sets of points as described in Activity Set 11.1.
37. You are an expert at solving triangle problems as described in Activity Set 11.3.

Answers to T/F Review.

1. F
2. F
3. F
4. F
5. T
6. F
7. T
8. T
9. F
10. T
11. T
12. F
13. T
14. T
15. T
16. F
17. F
18. T
19. F
20. T (Practice this!)
21. T (Practice this!)
22. T (Practice this!)
23. T (Practice this!)
24. T (Practice this!)
25. T (Practice this!)
26. T (Practice this!)
27. T (Practice this!)
28. T (Practice this!)
29. T
30. T
31. F
32. T
33. F
34. T
35. T
36. Initial answers will vary. Final answer should be T.
37. Initial answers will vary. Final answer should be T.