Math 213 T/F Practice Problems for Exam 3

True & False: Determine if each of the following is true or false. In each case, explain your answer in detail or correct the question if it is false. For both true and for false answers, 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. SSS is a triangle similarity relationship.

20. AA is a triangle congruence relationship.

21. AA is a triangle similarity relationship.

22. You can bisect an angle using only a compass and a straightedge.

23. You can bisect a line using only a compass and a straightedge.

24. You can construct a perpendicular bisector to a line using only a compass and a straightedge.

25. You can copy angles using only a compass and a straightedge.

26. You can copy line segments using only a compass and a straightedge.

27. You can construct an equilateral triangle using only a compass and a straightedge.

28. You can construct a rhombus using only a compass and a straightedge.

29. You can create a tessellation template starting with an equilateral triangle using at least two tessellation techniques.

30. You can create a tessellation template starting with a parallelogram using at least two tessellation techniques.

31. You can sketch the translation image of any shape given a point to point translation.

32. You can sketch the rotation image of any shape given a center of rotation, a degree of rotation and a direction for rotation.

33. You can sketch the glide reflected image of any shape given a center of rotation, a degree of rotation, a direction for rotation and line of reflection.

34. You can sketch a scaled image of any shape given a center of rotation.

35. All reflection images are created by reflecting across a vertical line.

36. The ratio of corresponding sides on similar polygons is constant.

37. The ratio of corresponding sides on similar triangles is constant.

38. You are an expert at finding sets of points as described in Activity Set 11.1 and using proportions to solve triangle problems as described in Activity Set 11.3.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
F	F	F	F	T	F	T	T	F	T	T	F	T	T	T	T	F	T	T	F

21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	
T	T	T	T	T	T	T	T	T	T	T	T	T	F	F	T	T	Better be!	