Lesson 8.6
Homework Answers
Pg 456 - #1-22, 24, 25-32, 35-37, 40-44

1. 1:2; 1:4

2. 4:3; 16:9

3. 2:3; 4:9

4. 3:5; 9:25

5. 24 in^2

6. 54 m^2

7. 59 ft^2

8. 439 m^2

9. $384

10. $47.20

11. 1:2; 1:2

12. 5:2; 5:2

13. 7:3; 7:3

14. 3:4; 3:4

15. 4:1; 4:1

16. 1:10; 1:10

17. 3:1; 9:1

18. 2:5; 4:25

19. 2:3; 4:9

20. 7:4; 49:16

21. 6:1; 36:1

22. 800 cm^2

24. 0.3 cm^2

25. 252 m^2

26. $x = 2cm, y = 3cm$

27. $x = 2\sqrt{2}cm, y = 3\sqrt{2}cm$

28. $x = 4cm, y = 6cm$

29. $x = \dfrac{8\sqrt{3}}{3} cm, 4\sqrt{3}cm$

30. $x = 4\sqrt{2}cm, y = 6\sqrt{2}cm$

31. $x = 8cm, y = 12cm$

32. $2\dfrac{1}{4} in$ by $12in$

35. $\dfrac{5}{2}; \dfrac{25}{4}$

36. $\dfrac{8}{3}; \dfrac{64}{9}$

37. $\dfrac{2}{1}; \dfrac{4}{1}$

40. a) $6\sqrt{3}cm^2$

    b) $54\sqrt{3}cm^2; 13.5\sqrt{3}cm^2; 96\sqrt{3}cm^2$

41. Always; ~ rectangles with = perimeters have a similarity ratio of 1, so they are ≅.

42. Sometimes; a 1-by-8 rect. And 2-by-4 rect. have the same areas, but aren't ~.

43. Never; if they were ≅ both measures would be the same. If they were ~, but not ≅, their areas would not be =.

44. Sometimes; if they are ≅, they are ~ and have = areas.