Section (2.1)

30. Area = 9 square units

32. $\overline{AB} = \sqrt{41}$, $\overline{AC} = \sqrt{41}$, $\overline{BC} = \sqrt{82}$, area = $\frac{41}{2}$.

34. Show $\overline{AB} = \sqrt{80}$, $\overline{BC} = \sqrt{20}$, $\overline{AC} = \sqrt{180}$. Now show $\overline{AB} + \overline{BC} = \overline{AC}$.

42. Proof problem. Show all three required distances equals $\frac{\sqrt{a^2+b^2}}{2}$.

Section (2.2)

14. x-int: (1,0), (-1,0). y-int: (0,1).

18. Graph is a straight line. Plot points.

52. $(x + 1)^2 + (y + 4)^2 = 64$.

54. $(x + 1)^2 + (y - 5)^2 = 130$.

62. $(x - 1)^2 + (y - 1)^2 = 4$. Now you can find center and radius.

64. $x^2 + (y + 3)^2 = 7$. Now you can find center and radius.

Section (2.3)

No HW!

Section (2.4)

14. $y = -\frac{4}{3}x - 4$

48. Slope is undefined. This is a vertical line.

52. Show that the slopes of sides AB and AC, multiply to give $-1$. This shows ABC Δ is a right triangle.