Name _____ Date _____ Hour _____

THINKING WITH MATHEMATICAL MODELS

ACE # 34-36, 44-52 pg. 39-41

34.) **Refer to the data provided on page 39.**

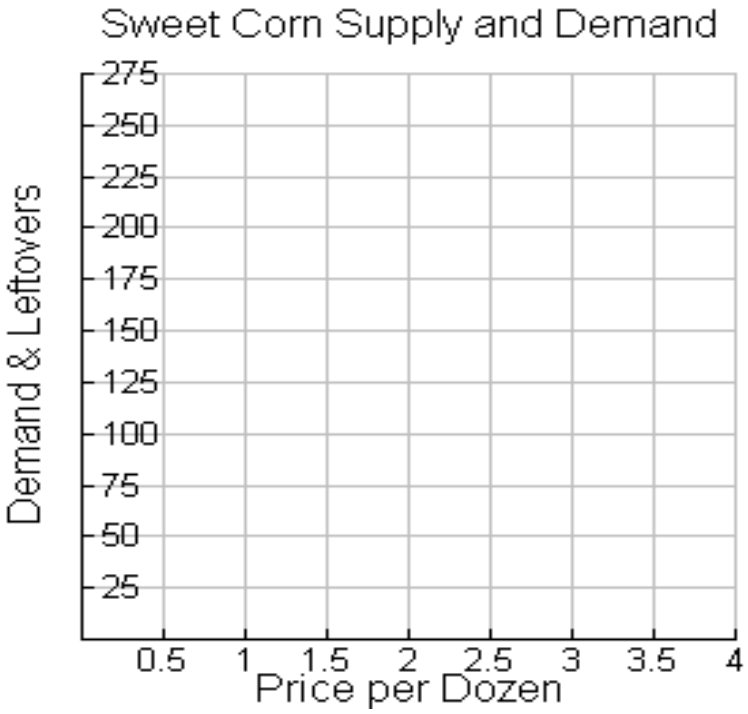
a) _____

b) _____

c) _____

d) _____

e) Create a graph that shows both equations from c and d above. Use the graph to estimate the price for which the leftovers equal the demand. Then, find the price by using the symbolic method.



Using Symbolic Method:

35.) **Refer to the data tables provided on page 40.**

a) Linear: Yes or No Explain: _____

b) Linear: Yes or No Explain: _____

c) Linear: Yes or No Explain: _____

36.) Use the following equations to complete the tables. Explain whether or not each one is linear.

a) $y = -3x - 8$ Linear? Explain:

x	-5	-2	1	4
y				

b) $y = 4 (x - 7) + 6$ Linear? Explain:

x	-3	0	3	6
y				

c) $y = x (3x + 2)$ Linear? Explain:

x	-3	0	3	6
y				

d) $y = 4 - 3x$ Linear? Explain:

x	-3	0	3	10
y				

Name _____ Date _____ Hour _____

THINKING WITH MATHEMATICAL MODELS

ACE # 34-36, 44-52 pg. 39-41 continued

For numbers 44 – 52, evaluate the expressions **without** using a calculator.

44. -15 + (-7) = _____

45. -7 – 15 = _____

46. -7 – (-15) = _____

47. -15 + 7 = _____

48. -20 ÷ 5 = _____

49. -20 ÷ (-5) = _____

50. -20 ÷ (-4) = _____

51. -20 ÷ (-2.5) = _____

52. -20 • (-2.5) = _____