

## 4-3 | Real World Problems with systems

Ex 1, p. 221:

meat:  $y = -.56x + 113.6$

poultry:  $y = .76x + 68.57$

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poultry:  $y = .76x + 68.57$

(Need calculator)

$$-.56x + 113.6 = .76x + 68.57$$

$$-1.32x = -45.03$$

$$x = 34.1$$

what is  $x$  in  
the problem?

$x = \#$  years since 2000

So:

poultry tonnage  
will equal red meat  
in 2034.

(Ex 2)

$$x = y - 4$$

$$4x = y + 6$$

$$4(y - 4) = 2y + 6$$

$$4y - 16 = 2y + 6$$

$$2y = 22$$

Ex 3

$$3(x + x + 5) = 297$$

$$6x + 15 = 297$$

$$6x = 282$$

$$x = 47$$

$$.3x + .8y = .5(70)$$

$$x + y = 70 \quad y = -x + 70$$

$$.3x + .8(-x + 70) = 35$$

$$.3x - .8x + 56 = 35$$

$$-.5x = -21$$

$$x = 42$$

$$y = 28$$

Ex 5)

Revenue

Cost

$X = \# \text{ units}$

$$5.5X = 3X + 3000$$

$$2.5X = 3000$$

$$X = 1200$$

Ex 6

$$x + (x + 80) + (x + 10) = 180$$

$$3x + 90 = 180$$

$$x = 30$$