

$$1.) a.) 55 - 42 = 22 - 5$$

$$60 = 62 \text{ or } p = 35$$

$$2 = 12$$

$$\pi = (35)(10) - 100 + 50 = 100$$

$$= 200$$

$$s = (20)(10)(\frac{1}{2}) = 100$$

$$10.) 22 - 5 = 55 - 72$$

$$42 = 60 \quad 2 = 15 \quad p = 75$$

$$\pi = 15(75) - 100 + 75 = 225$$

$$= 125$$

$$s = (30)(15)(\frac{1}{2}) = 225$$

$$c.) \Delta W_c = \Delta Profit + \pi (s)$$

$$= (200 - 125) + (100 - 225)$$

$$= -50$$

$$11.) p = 27 \quad 2 \Rightarrow 22 - 5 = 27$$

$$2 = 16$$

$$p = 55 - 22$$

$$27 = 55 - 22$$

$$22 = 18$$

$$2 = 14$$

$$s = 14(28)(\frac{1}{2}) = 196$$

$$\pi = (14)(27) - 100 + 5(14) - (14)^2$$

$$= 152$$

$$e.) P = 3$$

$$25 = 55 - 12$$

$$22 - 5 = 17$$

$$2 = 16$$

$$(2 = 14)$$

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$$P = 13$$

$$CS = (14)(32)\left(\frac{1}{2}\right) = 224$$

$$\pi = (23)(14) - 100 + 5(14) = (14)^2 = 96$$

$$f.) 55 - P = 12$$

$$22 - 5 = 12$$

$$43 = 22$$

$$2 = 8.5$$

$$2 = 21.5$$

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$$CS = \frac{1}{2}(8.5)(43) = 182.75$$

$$\pi = (\overline{20})^{12}(8.5) - 100 + 5(\overline{20}) - (\overline{20})^2 = -27.75$$

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$$2.) N_0, 42 = \frac{mc}{1 - \frac{1}{2}} = 84mc$$

$$25 = \frac{1mc}{1 - \frac{1}{4}} = 1.33mc$$

$$\frac{42}{25} = 1.68$$

$$\frac{1.33}{1.33} = 1$$

$$1.) (25)(1.5) = 37.5$$

$$3.) \quad W_n = 1000n + 75n^2$$

$$ME = 1000 + 150n$$

$$a) \quad ME = MW$$

$$1000 + 150n = 30,000 - 125n$$

$$275n = 29,000$$

$$n = 105.45$$

$$\begin{aligned} W &= 1,000 + (105.45)(75) \\ &= \$8,908.75 \end{aligned}$$

$$b.) \quad 30,000 - 125n = 1000 + 75n$$

$$200n = 29,000$$

$$n = 145$$

$$W = \$11,875$$