

BE-1B

TUESDAY 12-5-06

AHSGE WORKBOOK

Page

Problem
Number

34

6

35

7

35

8

35

9

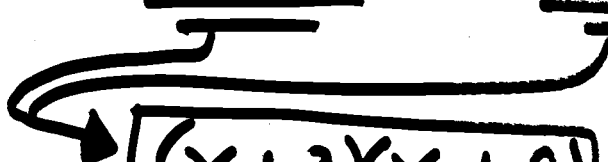
Pg. 492

$$\textcircled{4} \quad x^2 + 11x + 24$$

$$\begin{array}{l} \text{sum} = 11 \\ \text{prod} = 24 \\ \quad \swarrow \searrow \\ \quad +3 +8 \end{array}$$

$$(x^2 + 3x) + (8x + 24)$$

$$x(x+3) + 8(x+3)$$



$$\boxed{(x+3)(x+8)}$$

$$\textcircled{5} \quad c^2 - 3c + 2$$

$$\begin{array}{l} \text{sum} = -3 \\ \text{prod} = 2 \\ \quad \swarrow \searrow \\ \quad -1 \quad -2 \end{array}$$

$$(c^2 - 1c) + (-2c + 2)$$

$$c(c-1) + -2(c-1)$$

$$\boxed{(c-1)(c-2)}$$

$$\textcircled{6} \quad N^2 + 13N - 48$$

$$\text{Sum} = 13$$

$$\text{prod} = -48$$

$$\begin{array}{c} \diagup \quad \diagdown \\ -3 \quad +16 \end{array}$$

Put -3 first to make grouping easier

$$(N^2 - 3N) + (16N - 48)$$

$$\underline{N(N - 3)} + 16 \underline{(N - 3)}$$

$$\boxed{(N - 3)(N + 16)}$$

$$\textcircled{7} \quad p^2 - 2p - 35$$

$$\text{Sum} = -2$$

$$\text{prod} = -35$$

$$\begin{array}{c} \diagup \quad \diagdown \\ +5 \quad -7 \end{array}$$

$$(p^2 - 7p) + (5p - 35)$$

$$p(\underline{p - 7}) + 5(\underline{p - 7})$$

$$\boxed{(p - 7)(p + 5)}$$

$$\textcircled{4} \quad 3a^2 + 8a + 4$$

$$\text{sum} = 8$$

$$\text{prod} = 12$$

$$+2 \quad +6$$

$$(3a^2 + 2a) + (6a + 4)$$

$$a(3a + 2) + 2(3a + 2)$$

$$\boxed{(3a + 2)(a + 2)}$$

$$\textcircled{6} \quad 2p^2 + 14p + 24$$

$$2(p^2 + 7p + 12)$$

$$\text{sum} = 7$$

$$\text{prod} = 12$$

$$+3 \quad +4$$

$$2[(p^2 + 3p) + (4p + 12)]$$

$$2[p(p + 3) + 4(p + 3)]$$

$$\boxed{2[(p + 3)(p + 4)]}$$

💡💡 GCF!

$$\begin{aligned} &(p + 3)(2p + 8) \\ &(p + 3)(2)(p + 4) \end{aligned}$$

$$\textcircled{7} \quad 2x^2 + 13x + 20$$

$$S \Rightarrow 13$$

$$P \Rightarrow 40$$

$$\begin{array}{c} \diagup \quad \diagdown \\ +5 \quad +8 \end{array}$$

$$(2x^2 + 5x) + (8x + 20)$$

$$x(\underline{2x+5}) + 4(\underline{2x+5})$$

$$\boxed{(2x+5)(x+4)}$$

Page 498 # 8, 9

499 # 10, 11

HOMWORK