

2.8 p. 91 # 1-23 odd

$$\textcircled{1} \quad x^2 - 36 \\ (x+6)(x-6)$$

$$\textcircled{3} \quad 4b^2 - 100 \\ (2b+10)(2b-10)$$

$$\textcircled{5} \quad -2(x^2 + 16) \\ -2(x+4)(x-4)$$

$$\textcircled{7} \quad y^2 + 24y + 144 \\ (y+12)^2$$

$$\textcircled{9} \quad 25w^2 - 20w + 4 \\ (5w-2)^2$$

$$\textcircled{11} \quad -18a^2 - 12a - 2 \\ -2(9a^2 + 6a + 1) \\ -2(3a+1)^2$$

$$\textcircled{13} \quad x^2 - 18xy + 81y^2 \\ (x-9y)^2$$

$$\textcircled{15} \quad 16x^2 + 8xy + 100y^2 \\ (4x+10y)^2 \\ \text{OR} \quad 2(2x+5y)^2$$

$$\textcircled{17} \quad 8w^2 = 50 \\ 8w^2 - 50 = 0 \\ 2(4w^2 - 25) = 0 \\ 2(2w+5)(2w-5) = 0 \\ 2w+5=0 \quad 2w-5=0 \\ w = -5/2 \text{ or } w = 5/2$$

$$\textcircled{19} \quad 8a^2 - 72 = 0 \\ 2(4a^2 - 36) = 0 \\ 2(2a+6)(2a-6) = 0 \\ 2a+6=0 \quad 2a-6=0 \\ a = -3 \quad a = 3$$

$$\textcircled{21} \quad -4y^2 + 32y - 64 = 0 \\ -(4y^2 - 32y + 64) = 0 \\ -(2y-8)^2 = 0 \\ 2y-8=0 \\ y=4$$

This only has one answer.

$$\textcircled{23} \quad -7r^2 + 140r - 700 = 0 \\ -7(r^2 - 20r + 100) = 0 \\ -7(r-10)^2 = 0 \\ r = 10$$