

$$(33) \sqrt{-50 + 15x} = x$$

$$\{10, 5\}$$

$$(36) \sqrt{3x + 23} = \sqrt{-5 - x}$$

$$\{-7\}$$

$$(37) 1 + \sqrt{2m - 5} = \sqrt{3m - 5}$$

$$\{3, 7\}$$

see
next
pg.

$$(24) 2 + \sqrt{3v - 6} = v$$

$$\{2, 5\}$$

$$(28) \sqrt{1 - m} = 3 - \sqrt{4 - 7m}$$

$$\{0\}$$

see
next
pg.

$$(37) \left(1 + \sqrt{2m-5}\right)^2 = \left(\sqrt{3m-5}\right)^2$$

$$1 + 2\sqrt{2m-5} + \cancel{2m-5} = \cancel{3m-5}$$

$-2m \qquad -2m$

$$1 + 2\sqrt{2m-5} = m$$

$$2\sqrt{2m-5} = m-1$$

$$\left(\sqrt{2m-5}\right)^2 = \left(\frac{m-1}{2}\right)^2$$

$$2m-5 = \frac{m^2 - 2m + 1}{4}$$

$$8m - 20 = m^2 - 2m + 1$$

$$m^2 - 10m + 21 = 0$$

$$\text{Sum} = -10$$

$$\text{prod} = 21$$

$$\begin{array}{c} 1 \setminus \\ -3 \quad -7 \end{array}$$

$$(m-3)(m-7) = 0 \quad \checkmark \quad \checkmark$$

$m = 3, 7$

$$(20) (\sqrt{1-m})^2 = (3 - \sqrt{4-7m})^2$$

$$\begin{array}{rcl} 1-m & = & 9 - 6\sqrt{4-7m} + (4-7m) \\ -13+7m & -9 & -4+7m \end{array}$$

$$\frac{-12+6m}{-6} = \frac{-6\sqrt{4-7m}}{-6}$$

$$(2-m)^2 = (\sqrt{4-7m})^2$$

$$\cancel{4} - 4m + m^2 = \cancel{4} - 7m$$

$$m^2 + 3m = 0$$

$$m(m+3) = 0$$

$$m = \{0, -3\}$$

$$m = \{0\}$$

$$(a+b)^2 = a^2 + 2ab + b^2$$

$$(a-b)^2 = a^2 - 2ab + b^2$$