

Solve the following equations.

**1.**  $3y^2 - 7y = 20$

**13.**  $y^2 + 4y - 24 = 8$

**2.**  $2y^2 + 13y = 24$

**14.**  $9x^2 - 8x - 16 = 0$

**3.**  $n^2 - n + 6 = 12$

**15.**  $2n^2 + 14n + 24 = 0$

**4.**  $10x^2 - x - 2 = 0$

**16.**  $p^2 = p + 1$

**5.**  $y^2 - 9y + 20 = 0$

**17.**  $7y^2 - 14y - 56 = 0$

**6.**  $3y^2 - 11y - 35 = 0$

**18.**  $k^2 + 5k + 6 = 0$

**7.**  $x^2 + x - 2 = 0$

**19.**  $x^2 + 2x = 15$

**8.**  $25x^2 - 36 = 0$

**20.**  $10x^2 + 18x + 21 = 0$

**9.**  $3 + 19x = 14x^2$

**21.**  $4x^2 = 6x + 28$

**10.**  $60x^2 + 104x + 28 = 0$

**22.**  $36 + \frac{75}{x} - \frac{21}{x^2} = 0$

**11.**  $25 = \frac{70}{x} - \frac{49}{x^2}$

**23.**  $x + \frac{1}{3} = \frac{4}{3x}$

**12.**  $(p + 4)(p - 6) = -16$

**24.**  $x - 1 - \frac{1}{4}x^2 = 0$