

Antwoorden Opgave 1

- a. $x^2 = 144$
 $x = -12$ of $x = 12$
- b. $x^2 = 64$
 $x = -8$ of $x = 8$
- c. $x = -\sqrt{32}$ of $x = \sqrt{32}$
- d. $x^2 = 16$
 $x = -4$ of $x = 4$
- e. $x = -\sqrt{5}$ of $x = \sqrt{5}$
- f. $x^2 = 27$
 $x = -\sqrt{27}$ of $x = \sqrt{27}$
- g. $x^2 = 0$
 $x = 0$
- h. $x^2 - 6x = 6 - 6x$
 $x^2 = 6$
 $x = -\sqrt{6}$ of $x = \sqrt{6}$
- i. $x^2 = 6$
 $x = -\sqrt{6}$ of $x = \sqrt{6}$
- j. heeft geen oplossingen

Antwoorden Opgave 2

- a. $x = 3$ of $x = 8$
- b. $x^2 - x - 20 = 0$
 $(x - 5)(x + 4) = 0$
 $x = 5$ of $x = -4$
- c. $\frac{1}{4}x(x - 12) = 0$
 $x = 0$ of $x = 12$
- d. $2(x^2 + 3x - 40) = 0$
 $2(x + 8)(x - 5) = 0$
- e. $x^2 - 2x + 1 = 1$
 $x^2 - 2x = 0$
 $x(x - 2) = 0$
 $x = 0$ of $x = 2$
- f. $x^2 + 8x = 2x + 16$
 $x^2 + 6x - 16 = 0$
 $(x + 8)(x - 2) = 0$
 $x = -8$ of $x = 2$
- g. $x^2 - 10x + 25 = 0$
 $(x - 5)^2 = 0$
 $x = 5$ (2 keer)
- h. $x^2 - 12x + 20 = -15$
 $x^2 - 12x + 35 = 0$
 $(x - 7)(x - 5) = 0$
 $x = 7$ of $x = 5$
- i. $x = -1\frac{1}{5}$ of $x = 10$

Antwoorden Opgave 3

- a. $x = 2^{1/2} - \frac{1}{2}\sqrt{13}$ of $x = 2^{1/2} + \frac{1}{2}\sqrt{13}$
- b. $x^2 + 8x + 1 = 0$
 $x = -4 - \frac{1}{2}\sqrt{60}$ of $x = -4 + \frac{1}{2}\sqrt{60}$
- c. $3x^2 - 2x - 1 = 0$
 $x = \frac{1}{6}(2 - \sqrt{16})$ of $x = \frac{1}{6}(2 + \sqrt{16})$
 $x = -\frac{1}{3}$ of $x = 1$
- d. $6x^2 + x - 2 = 0$
 $x = -\frac{2}{3}$ of $x = \frac{1}{2}$
- e. $\text{Disc} < 0 \rightarrow$ geen oplossingen
- f. $x^2 - 5x + 2 = 0$
 $x = 2\frac{1}{2} - \frac{1}{2}\sqrt{17}$ of $x = 2\frac{1}{2} + \frac{1}{2}\sqrt{17}$
- g. $9x^2 - 24x + 16 = 0$
 $x = 1\frac{1}{3}$
- h. $x^2 - 5x - 1 = 0$
 $x = 2\frac{1}{2} - \frac{1}{2}\sqrt{29}$ of $x = 2\frac{1}{2} + \frac{1}{2}\sqrt{29}$

Antwoorden Opgave 4

- a. $x^2 - 3x - 10 = 0$
 $(x - 5)(x + 2) = 0$
 $x = 5$ of $x = -2$
- b. $x^2 - 3x - 6 = 0$
 $x = 1\frac{1}{2} - \frac{1}{2}\sqrt{33}$ of $x = 1\frac{1}{2} + \frac{1}{2}\sqrt{33}$
- c. Geen oplossingen want $x^2 + 4 > 0$
- d. $x^2 + x = 2x^2 - 12x$
 $-x^2 + 13x = 0$
 $-x(x - 13) = 0$
 $x = 0$ of $x = 13$
- e. $(x - 5)^2 = 0$
 $x = 5$
- f. $x = 1\frac{1}{2}$ of $x = 6$

Antwoorden Opgave 5

- a. $3x^2 - 2x - 6 = 0$
 $x = -1,12$ of $x = 1,79$
- b. $p = 0,94$ of $p = 51,06$
- c. $t = -0,30$ of $t = 17,64$

Antwoorden Opgave 6

- a. $x^2 - 4x - 20 = 0$ $D = 96 > 0 \rightarrow$ 2 oplossingen
- b. $D = -87 \rightarrow$ geen oplossingen
- c. direct zichtbaar 2 oplossingen
- d. $\frac{1}{6}t(2t - 3) = 0 \rightarrow$ 2 oplossingen
- e. $16x^2 - 8x + 1 = 0$ $D = 0 \rightarrow$ 1 oplossing
- f. $2x^2 + 26 > 0 \rightarrow$ geen oplossingen