

## Oefeningen rekenvaardigheid

### ANTWOORDEN

- $x^3 + 3x^2 + 2x = 0 \Rightarrow x(x^2 + 3x + 2) = 0 \Rightarrow x(x+2)(x+1) = 0$  dus  $x=0$  of  $x=-1$  of  $x=-2$
- $\sqrt{x^5} = 3 \Rightarrow x^{\frac{5}{2}} = 3 \Rightarrow x = 3^{\frac{2}{5}}$
- $\sqrt{3x+4} = x \Rightarrow 3x+4 = x^2 \wedge x \geq 0 \Rightarrow (x-4)(x+1) = 0 \wedge x \geq 0 \Rightarrow x = 4$
- $x^4 - 13x^2 + 36 = 0 \Rightarrow (x^2 - 9)(x^2 - 4) = 0 \Rightarrow x = \mp 3 \vee x = \mp 2$
- $\frac{8}{2x-1} = 2 \Rightarrow 8 = 2(2x-1) \wedge x \neq 0,5 \Rightarrow x = 2,5$
- $x^4 = x^2 \Rightarrow x^2(x^2 - 1) = 0 \Rightarrow x = 0 \vee x = \mp 1$
- $\frac{x^2 - 1}{x-1} = 0 \Rightarrow \frac{(x-1)(x+1)}{x-1} = 0 \Rightarrow x+1 = 0 \Rightarrow x = -1$
- $2\sqrt{x-5} = 6 \Rightarrow 4(x-5) = 36 \Rightarrow 4x = 56 \Rightarrow x = 14$
- $5(x-2) = x(x-2) \Rightarrow 5x-10-x^2+2x = 0 \Rightarrow x^2 - 7x + 10 = 0 \Rightarrow x = 5 \vee x = 2$
- $\frac{1}{x} + \frac{2}{x^2} = 1 \Rightarrow \frac{x+2-x^2}{x^2} = 0 \Rightarrow x^2 - x - 2 = 0 \wedge x \neq 0 \Rightarrow x = 2 \vee x = -1$
- $\sin x = \frac{1}{2} \Rightarrow x = \frac{1}{6}\pi(\text{mod } 2\pi) \vee x = \frac{5}{6}\pi(\text{mod } 2\pi)$
- $\cos x = -\frac{1}{2}\sqrt{3} \Rightarrow x = \mp \frac{1}{3}\pi(\text{mod } 2\pi)$
- $\tan x = \sqrt{3} \Rightarrow x = \frac{1}{3}\pi(\text{mod } \pi)$
- $\sin x = -\frac{1}{2}\sqrt{2} \Rightarrow x = 1\frac{1}{4}\pi(\text{mod } 2\pi) \vee x = 1\frac{3}{4}\pi(\text{mod } 2\pi)$
- $\cos x = -\frac{1}{2} \Rightarrow x = \mp \frac{1}{3}\pi(\text{mod } 2\pi)$
- $\sin x = 0,7 \Rightarrow x = 0,775(\text{mod } 2\pi) \vee x = 2,366(\text{mod } 2\pi)$
- $\cos x = 0,3 \Rightarrow x = \mp 1,266(\text{mod } 2\pi)$
- $\sin x = -0,8 \Rightarrow x = 4,0689(\text{mod } 2\pi) \vee x = 5,356(\text{mod } 2\pi)$
- $\cos x = -0,2 \Rightarrow x = \mp 1,772(\text{mod } 2\pi)$
- $\tan x = 5,3 \Rightarrow x = 1,384(\text{mod } \pi)$