

7. Domain of functions



Exercise material

Exercise

Determine the domain of the following functions.

$$f(x) = \sqrt{x^2 - 2},$$

$$g(x) = \sqrt{(x-2)^2}$$

$$h(x) = \sqrt{x+1} + \sqrt{3-2x}, \quad i(x) = \frac{(x+5)(x-1)}{(x^2+1)(x^2-3)},$$

$$j(x) = \frac{1 + \sqrt{x}}{x^3(1 - \sqrt{3x})},$$

$$k(x) = \frac{x^6 - \sqrt{\pi}}{\sqrt{x+7}}.$$



Exercise

Determine the domain of the following functions.

$$f(x) = 5x + 3;$$

$$g(x) = x^2 + 4x + 5;$$

$$h(x) = \frac{\sqrt{x-3}}{x-4};$$

$$i(x) = \frac{\ln(x+1)}{x+1};$$

$$j(x) = \ln(x^2 - 1).$$

