





























































## Funktionen: Definitions- und Wertebereiche

Aufgaben	Lösungen
1 $f(x) = -\frac{1}{x^2} - 3^x$ 	$D = \mathbb{R}^*$ $W = \mathbb{R}_+^*$  (A)
2 $f(x) = x^2$ 	$D = \mathbb{R}$ $W = \mathbb{R}_-$  (B)
3 $f(x) = x^{-1}$ 	$D = \mathbb{R}^*$ $W = \mathbb{R}^*$  (C)
4 $f(x) = \sqrt{1-x}$ 	$D = [1; \infty[$ $W = \mathbb{R}_+$  (D)
5 $f(x) = -x^2 + 2$ 	$D = \mathbb{R}$ $W = [-1; \infty[$  (E)
6 $f(x) = \frac{1}{x^2}$ 	$D = [-2; 2]$ $W = [0; 2]$  (F)
7 $f(x) = \sqrt{1-x^2}$ 	$D = \mathbb{R}^*$ $W = \mathbb{R}^*$  (G)
8 $f(x) = \frac{1}{(x-3)} + 1$ 	$D = \mathbb{R}$ $W = \mathbb{R}_-$  (H)
9 $f(x) = x^5 - 2$ 	$D = \mathbb{R} \setminus \{-2\}$ $W = \mathbb{R} \setminus \{-1\}$  (I)
10 $f(x) = 2^x$ 	$D = ]-\infty; 2]$ $W = \mathbb{R}_-$  (J)
11 $f(x) = \sqrt{8+x^3}$ 	$D = \mathbb{R}$ $W = \mathbb{R}$  (K)
12 $f(x) = x^4 + x^2 + 2$ 	$D = \mathbb{R}$ $W = \mathbb{R}_+^*$  (L)

## Funktionen: Definitions- und Wertebereiche

Aufgaben	Lösungen
A $f(x) = \frac{1}{x^4} + 2^x$ 	$D = \mathbb{R}^*$  $W = \mathbb{R}_+^*$  1
B $f(x) = -x^2$ 	$D = \mathbb{R}$  $W = \mathbb{R}_+$  2
C $f(x) = \frac{1}{x^3}$ 	$D = \mathbb{R}^*$  $W = \mathbb{R}^*$  3
D $f(x) = \sqrt{x-1}$ 	$D = ]-\infty; 1]$  $W = \mathbb{R}_+$  4
E $f(x) = x^4 - 1$ 	$D = \mathbb{R}$  $W = ]-\infty; 2]$  5
F $f(x) = \sqrt{4-x^2}$ 	$D = \mathbb{R}^*$  $W = \mathbb{R}_+^*$  6
G $f(x) = \frac{1}{x}$ 	$D = [-1; 1]$  $W = [0; 1]$  7
H $f(x) = -x^4 - x^2$ 	$D = \mathbb{R} \setminus \{3\}$  $W = \mathbb{R} \setminus \{1\}$  8
I $f(x) = \frac{1}{(x+2)} - 1$ 	$D = \mathbb{R}$  $W = \mathbb{R}$  9
J $f(x) = -\sqrt{8-x^3}$ 	$D = \mathbb{R}$  $W = \mathbb{R}_+^*$  10
K $f(x) = x^3 + 4$ 	$D = [-2; \infty[$  $W = \mathbb{R}_+$  11
L $f(x) = -5^x$ 	$D = \mathbb{R}$  $W = [2; \infty[$  12