Domains of Functions - Practice (and solutions)

Find the domain of each of the following functions and write your result using interval notation.

1.
$$f(x) = 2x - 3$$

$$2. \ \ g(x) = 3x^3 - 5x^2 + 3x - 5$$

3.
$$f(x) = \sqrt{4-x}$$

4.
$$f(x) = x^4 + 2$$

5.
$$g(x) = \frac{4}{1-x}$$

6.
$$f(x) = \frac{-2}{x}$$

7.
$$f(x) = \frac{-3}{4 - x^2}$$

8.
$$f(x) = \frac{-3}{4+x^2}$$

9.
$$f(x) = \frac{2x-1}{x^2+4x}$$

10.
$$g(x) = \frac{6x}{3x^2 + 9x + 6}$$

11.
$$f(x) = \sqrt{x-2}$$

12.
$$g(x) = \sqrt{3x+2}$$

13.
$$f(x) = \sqrt[3]{4-x}$$

14.
$$f(x) = \sqrt[4]{4-x}$$

15.
$$f(x) = \sqrt[5]{4-x}$$

16.
$$f(x) = \frac{1}{\sqrt{x+2}}$$

17.
$$g(x) = \frac{3x^2}{\sqrt{4-x}}$$

18.
$$g(x) = \frac{3x}{\sqrt{4-x^2}}$$

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1)
$$(-\infty, \infty)$$

2)
$$(-\infty, \infty)$$

3)
$$(-\infty, 4]$$

4)
$$(-\infty, \infty)$$

5)
$$(-\infty,1) \cup (1,\infty)$$

6)
$$(-\infty,0) \cup (0,\infty)$$

7)
$$(-\infty, -2) \cup (-2, 2) \cup (2, \infty)$$

8)
$$(-\infty, \infty)$$

9)
$$(-\infty, -4) \cup (-4, 0) \cup (0, \infty)$$

10)
$$(-\infty, -2) \cup (-2, -1) \cup (-1, \infty)$$

11)
$$[2, \infty)$$

12)
$$\left[-\frac{2}{3},\infty\right)$$

13)
$$(-\infty, \infty)$$

14)
$$(-\infty, 4]$$

16)
$$[-2, \infty)$$

17)
$$(-\infty, 4)$$

18)
$$(-2,2)$$

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