

Mathematics 101 Worksheet 2.5-2.7

Problems

1) Determine whether the relation defines y as a function of x . Find also the domain and the range.

a) (graph)

b)(graph)

2)For the following, find the domain.

a) $\{(\frac{1}{3}, 10), (6, \frac{-1}{2}), (\frac{1}{4}, 4), (7, \frac{2}{5})\}$.

b) (graph)

c) (graph)

d) $g(x) = 7x^3 + 1$.

e) $\frac{x+10}{x-11}$.

f) $\sqrt{x+2}$.

3) For $f(x) = 6x^2 - 4$, evaluate $f(0)$, $f(-1)$, $f(y)$, $f(\pi)$, $f(-a)$.

4) Sketch the functions from memory. Determine also the domain and the range of each function.

a) $f(x) = x$

b) $f(x) = x^2$

c) $f(x) = x^3$

d) $f(x) = |x|$

e) $f(x) = \sqrt{x}$

f) $f(x) = \frac{1}{x}$