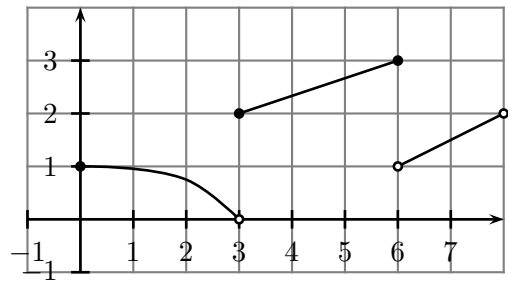


3. Table 1 below displays some values of an invertible function  $f(x)$ , while Figure 2 depicts the graph of the function  $g(x)$ .

Table 1

$x$	0	1	2	3	4	5	6
$f(x)$	2	6	5	4	1	3	7

Figure 2: Graph of  $g(x)$ 

- (a) (4 points) What is the domain of  $g$ ? of  $g^{-1}$ ?

- (b) (1 point each) Evaluate the following:

i.  $g(5)$

ii.  $g(g(6))$

iii.  $\lim_{x \rightarrow 3^-} g(x)$

iv.  $g^{-1}(f^{-1}(5))$

v.  $f(f(5))$

- (c) (4 points) Order the following from smallest to largest:  $g'(1), g'(2), g'(5), g'(6.4)$ .

$$g'(\text{---}) < g'(\text{---}) < g'(\text{---}) < g'(\text{---})$$