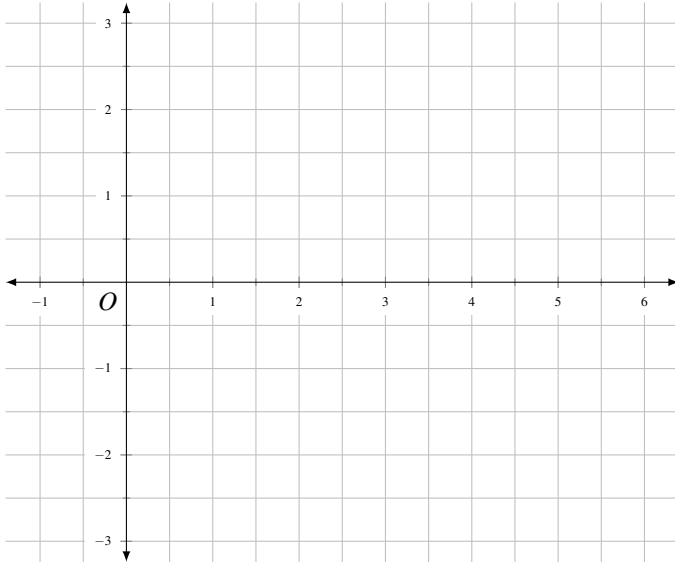


# Quiz 10

This quiz is graded out of 16 marks. No books, watches, notes or cell phones are allowed. You must show all your work, the correct answer is worth 1 mark the remaining marks are given for the work. If you need more space for your answer use the back of the page.

**Question 1.** (5 marks) Graph the function and state the domain and range:

$$f(x) = \begin{cases} x^2 - 2 & \text{if } x \leq 2 \\ \sqrt{x-2} & \text{if } x > 2 \end{cases}$$



b. (2 marks)  $h(x) = (g \circ g)(x)$

c. (2 marks)  $h(x) = g(1/x) - (f \cdot g)(4)$ .

**Question 2.** Suppose that  $f(x) = \sqrt{x-2}$  and  $g(x) = x^2 - 2$ . Find  $h(x)$  and its domain.

a. (2 marks)  $h(x) = (f \circ g)(x)$

**Question 3.** (5 marks) Find  $f^{-1}(x)$  for  $f(x) = \sqrt[3]{\frac{5x+1}{2}} - 3$ .