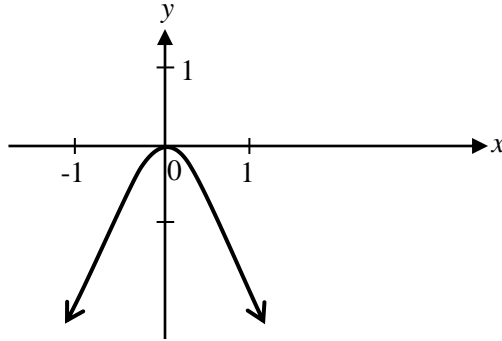


2021 Worksheet 4

Year 11 Applied Mathematics

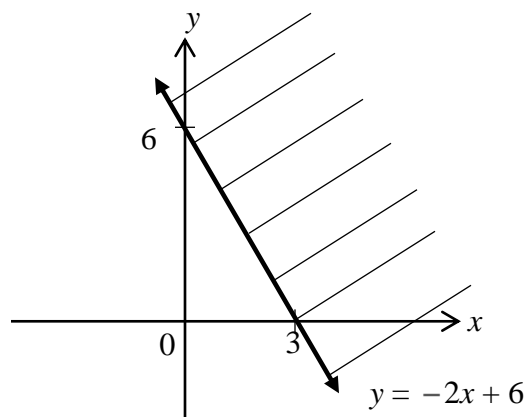
Write the answers in your Exercise Book.

1. Consider a relation given by the graph below.



- (a) State the **domain**. (1 mark)
- (b) State the **range**. (1 mark)
- (c) Is this relation a **function**? Give a reason for your answer. (1 mark)
- (d) By reflecting the graph in the line $y = x$, sketch the graph of the **inverse** relation. (1 mark)
- (e) Is the inverse relation a **function**? Give a reason for your answer. (1 mark)

2. The graph of $y = -2x + 6$ and a shaded region is shown below.



- (a) What are the coordinates of the **x-intercept** of the line $y = -2x + 6$? (1 mark)
- (b) What are the coordinates of the **y-intercept** of the line $y = -2x + 6$? (1 mark)
- (c) Write down an **inequality** representing the shaded region. (1 mark)