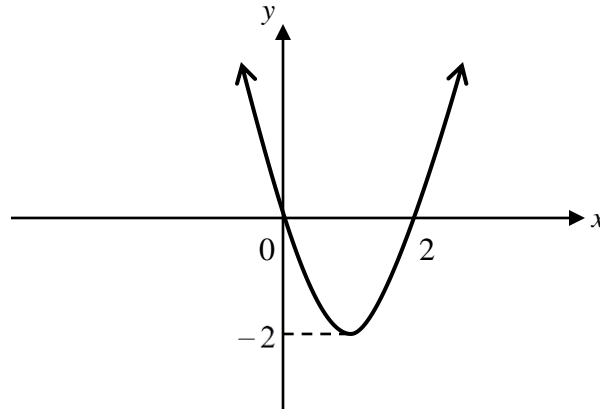


2021 Worksheet 6 Year 12 Mathematics

Write the answers in your Exercise Book.

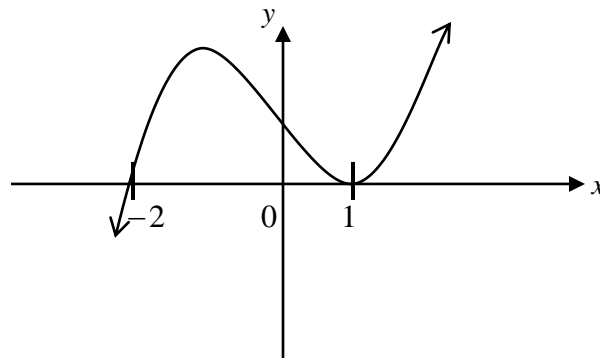
1. Give the **range** of the functions shown below.

(a)



(1 mark)

(b)



(1 marks)

2. A hyperbolic function is given by $y = \frac{3}{3-x}$

- (a) Find the **y – intercept** of this function.
- (b) Show that there is no **x – intercept** of this function. (1/2 mark)
- (c) State the equation of the **horizontal asymptote**. (1/2 mark)
- (d) State the equation of the **vertical asymptote**. (1/2 mark)
- (e) Hence, sketch the **graph** of this function. (2 1/2 marks)