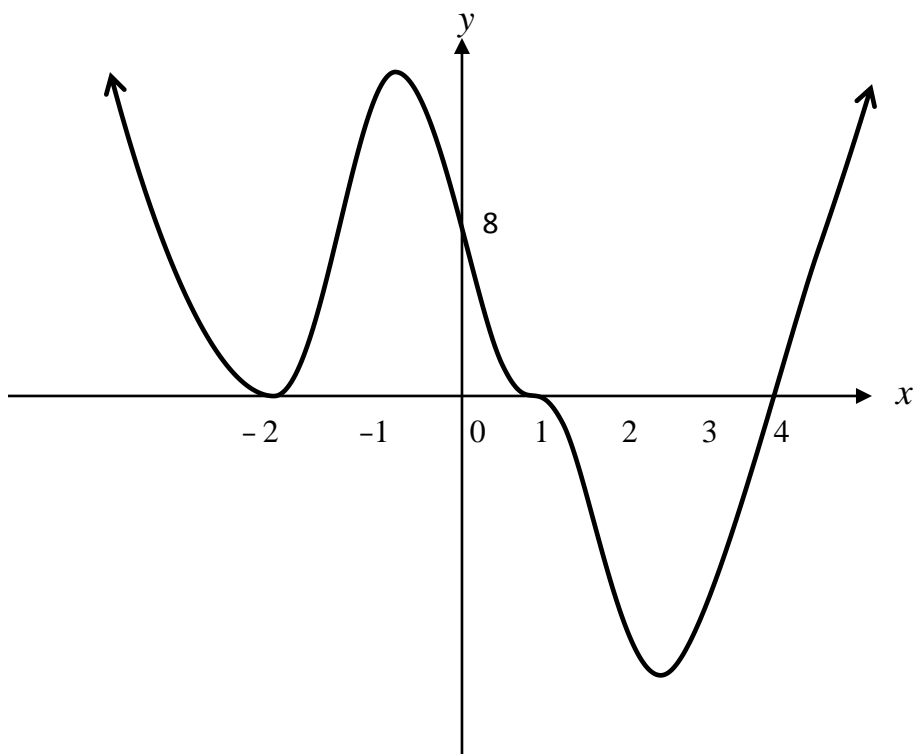


Worksheet 7

Year 13 Mathematics

Write the answers in your Exercise Book.

Study the graph of the polynomial shown below and then answer the questions that follow.



- (a) What are the coordinates of the **x-intercepts**? (1½ marks)
- (b) What are the coordinates of the **y-intercept**? (½ mark)
- (c) What are the coordinates of the point of **inflection**? (½ mark)
- (d) What are the coordinates of the **turning point** on the **x-axis**? (½ mark)
- (e) The graph has the equation of the form

$$y = k(x+a)^2(x-b)^3(x-c)$$

Find the values of a , b , c and k . (2 marks)