

**MINISTRY OF EDUCATION  
CHRISTMAS TERM  
SEPTEMBER 2020**

**GRADE 11**

**SUBJECT: MATHEMATICS**

**WEEK 4 LESSON 2**

**TOPIC: RELATIONS FUNCTIONS AND GRAPHS**

**SUB-TOPIC: Quadratic functions and graphs**

**OBJECTIVES:**

Draw and interpret graphs of a quadratic

Function to determine an estimate of the value of the gradient at a given point

**Content:**

- a). Draw the graph of the quadratic function  $f(x) = x^2 - 2x - 3$ , for the domain -2 to 4.
- b). from the graph, estimate the gradients of the curve at the points  $x = -\frac{1}{2}$  and  $x = \frac{1}{2}$ .

Solution:  $m(\text{at } x = -\frac{1}{2}) = -3$      $m(\text{at } x = \frac{1}{2}) = -1$