



مدرسة القديسة مريم الكاثوليكية الثانوية - دبي
ST. MARY'S CATHOLIC HIGH SCHOOL, DUBAI

YEAR 10 – MATHEMATICS (Week 3)-2021-2022

Subject	Mathematics
Class/ Section	Year 10 – A-F
Week	12th September to 16th September
Work send to students by	Google classroom
Total number of lessons per week	6
Unit/Topic	Unit 2.6 – Quadratic sequences (continued) Unit 9.1-9.3 Equations and Inequalities
Key Vocabulary	Solving, roots, quadratic formula, completing the square.
Lessons 1-6 –Live Zoom lesson along with face to face instruction for students present on a particular day Work will be assigned in google classroom which will be matched to the students ability.	<u>Specific Learning objectives</u> <ul style="list-style-type: none">● Find the roots of quadratic functions.● Rearrange and solve simple quadratic equations.● Use the quadratic formula to solve a quadratic equation● Solve quadratic equations by completing the square. <u>Specific Intended Learning Outcomes</u> <ul style="list-style-type: none">-Students will be able to find the roots of quadratic functions- Students will be able to use quadratic formula to solve a quadratic function.- Students will be able to solve quadratic equations by

Tasks/Activities

completing the square.

- Display **Key point 1** to define the term 'solving' in this context.
- Display **Example 1** and **Key point 2** to explain that the solutions to a quadratic function are known as the 'roots'. If possible, use graphing software to display the graph of $y = x^2 + 2x - 8$ and show students the practical application of this (that the roots are the x -coordinates where the curve cuts the x -axis).
- Display **Key point 4** to define the term 'perfect square'.
- Display **Example 3** and **Key point 5** to show the process for completing the square, and the general format of the solution in algebraic terms. Allow plenty of time for students to practise this skill and build confidence before they use it to solve equations.

Display **Key point 6** to show how to deal with coefficients of x^2 greater than 1. Again, introduce this slowly: work through an example from **Q11** and **Q12** together before giving students time to practise independently.

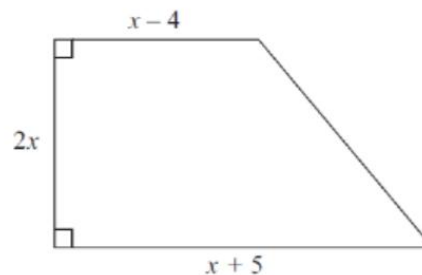
Complete the questions assigned from the Text Book – Edexcel GCSE (9-1) Mathematics Higher Student Book and PPT

Students will be put in break out rooms during Zoom lesson to encourage collaborative learning

Assessment Criteria/ Essential questions

Essential Question that are according to the Pearson edexcel specification

The diagram shows a trapezium.



All the measurements are in centimetres.

The area of the trapezium is 351 cm^2 .

Show that $2x^2 + x - 351 = 0$, and hence work out the value of x .

Resources

Assessment objectives expected by the board with respect to the above question is listed below.

AO1: Use and apply standard techniques

AO2: Reason, Interpret and communicate mathematically

AO3: Solve problems within mathematics and in other contexts.

1. Edexcel GCSE (9- 1)Mathematics Higher Student Book

2. Ppt on the the topic