



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

YEAR 8 – MATHEMATICS (Week 5)-2021-2022

<b>Subject</b>	<b>Mathematics</b>
<b>Class/ Section</b>	<b>Year 8 – Batch A, B, C, D, E, F</b>
<b>Week 5</b>	<b>26<sup>th</sup> September to 30<sup>th</sup> September</b>
<b>Work send to students by</b>	<b>Google classroom</b>
<b>Total number of lessons per week</b>	<b>5</b>
<b>Unit/Topic</b>	<ul style="list-style-type: none"><li>- <b>Delta 3 UNIT 1.3: Standard Form</b></li><li>- <b>Delta 2 UNIT 2.1: Working with powers</b></li><li>- <b>Delta 3 UNIT 2.2: Expanding</b></li></ul>
<b>Key Vocabulary</b>	<b>Equations, Expand, Identities, , difference of two squares</b>
<p><b>Lessons 1,2,3,4 and 5 –Live Zoom lesson along with face to face instruction for students present on a particular day</b></p> <p><b>Work will be assigned in Google classroom which will be matched to the students' ability.</b></p>	<p><b><u>Specific Learning objectives</u></b></p> <ul style="list-style-type: none"><li>- To write numbers using standard form. To learn Ordering numbers written in standard form.</li><li>- To simplify expressions involving powers and brackets.</li><li>- To Multiply pairs of brackets</li><li>- Square a linear expression.</li><li>- Use quadratic identities.</li></ul> <p><b><u>Specific Intended Learning Outcomes</u></b></p> <p>By the end of the Lesson Students will be able to</p> <ul style="list-style-type: none"><li>- Understand, Order and write numbers using standard form.</li><li>- Simplify simple expressions involving brackets and powers, by collecting like terms</li></ul>

## Tasks/Activities

- Multiply out brackets involving positive and negative terms
- Square a linear expression and collect like terms
- Derive and use identities for the product of two linear expressions of the form

Scientists describing the universe need to write down very large numbers in a way that is easy to read.

Write up  $2320$ ,  $2.52 \times 10^2$ ,  $0.02 \times 10^2$ ,  $21.5 \times 10^{23}$ ,  $2.5 \times 5^2$  and explain that only one of these expressions is in standard form.

write up the two original expressions added together, and ask students to simply it; for example,  $4x^3 + 2x^2 - x^3 + 3y^3 - 2y^2 + y^2 (= 3x^3 + 2x^2 + 3y^3 - y^2)$ . Establish that like terms are those with the same unknown, raised to the same power.

Explain that the negative sign changes the sign of each term within the brackets (you are multiplying by  $-1$ ). For example:  $6(p + 2) - 2(p + 1) = 6p + 12 - (2p + 2) = 6p + 12 - 2p - 2 = 4p + 10$

To Explore What is the area of a rectangle that  $(x + 2)$  by  $(x - 2)$ ?

Complete the questions assigned from the Delta 2 and Delta 3 text book in the notebook. Students will be work out with Zoom lesson to encourage collaborative learning and submit the Assignment in GC.

## Assessment Criteria/ Essential questions

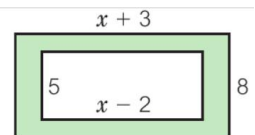
**Essential Question that are according to the KS3 Progress Maths**

e.g 1)AO3 –Make and use connections between mathematical terms

9 a Write an expression for the area of the larger rectangle.

b Write an expression for the area of the smaller rectangle.

c Write an expression for the shaded area.



2) AO1- Accurately recall facts and Present data mathematically

Put these sets of numbers in order, from smallest to largest.

a  $9.87 \times 10^2$   $8.65 \times 10^4$   $1.9 \times 10^3$   $3.59 \times 10^2$   $1.95 \times 10^4$

3)

5 **Problem-solving / Reasoning** Adam and Kari both expand and simplify the quadratic expression  $(x - 3)(-5 + x)$ .

Adam says the answer is  $x^2 + 2x - 15$ .

Kari says the answer is  $x^2 - 8x + 15$ .

Only one of them is correct. Who is it? What mistakes were made?

8 **Problem-solving / Reasoning** Show that

4)  $n(n + 8) - 2(n + 5) = (n + 4)(n - 2) + 2(2n - 1)$

## Resources

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|--|---|
|  | <ol style="list-style-type: none"><li>1. Ppt and Videos related to the topic</li><li>2. KS3 Maths Delta 2 and Delta 3 Active Learn Course</li><li>3. Assignment</li></ol> |
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