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| Name:  Teacher : | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | Date:\_\_\_\_\_\_\_\_\_ |
|  | **Year 12 Essentials 2021 – Practical Application 1**  **Pool Design**  **Weighting 7% Due Date: \_\_\_\_\_\_\_\_\_\_\_\_** | **Mark \_\_\_\_\_\_\_\_\_** | |
| **Conditions: 2 lessons in class & handed in 1 week after first lesson.** | | |

Scenario

Danielle has just bought a new house which doesn’t have a pool in the backyard and she would like one. Her back yard is a rectangular shape 15m by 10m.

Task:

Your task is to design her backyard pool area, with this area taking up no more than 30% of the backyard.

You will need to work out the materials required and the cost to build the pool, including the fencing, paving and the water to fill the pool.

You will need to apply the mathematical thinking process to form your final report/product:

• interpret the task and gather the key information

• identify the mathematics which could help to complete the task

• analyse information and data from a variety of sources

• apply their existing mathematical knowledge and strategies to obtain a solution

• verify the reasonableness of the solution

• communicate findings in a systematic and concise manner.

Resources:

Mathematical Thinking Process Planning sheet

Grid paper