## Lesson Plan for $\mathrm{S}_{4}$

## TOPIC: Quadratic Equation I

## Class Length: 55-60 minutes

## Objectives of the Lesson

1. Students understand the basic concepts of quadratic equations.
2. Students are able to solve quadratic equations with the method of factorization.

## Lesson preparation items:

1. Lesson slides (provided)
2. Create classroom YoTeach! backchannel chatroom
a. E.g.: https://palms.polyu.edu.hk:8448/yo/SSMath1, password: Fred
3. Prepare Realtimeboard with factorization practice questions
a. E.g.: https://miro.com/app/board/ogJ_ky5nc68=/
4. Setup Badaboom! game quiz
a. Question folder ID: folder_5e7c136f3b71540017c86c92

| Lesson Stage | Content / Topic | Activity / Tool | Class / Group/ Individuals | Time |
| :--- | :--- | :--- | :--- | :--- |
| Engage student <br> interests and recall <br> pre-existing <br> knowledge | Polynomials and <br> equations | YoTeach: <br> To ask students to give examples of polynomials and equations <br> (additional activity: students need to give a polynomial with a <br> degree higher than those given before) <br> Teacher will comment on the given polynomials and equations | Individuals | $10-15$ <br> minutes |
| Introduce concepts | Quadratic equations <br> and factorization | Lesson slides: <br> Quadratic Equations I | Class | 10 <br> minutes |
| Apply concepts | Factorization practice | Realtimeboard: <br> To ask students to use Realtimeboard to solve the quadratic <br> equations with the method of factorization | Groups | 20 <br> minutes |
| Review of concepts | Quadratic equation <br> questions | Badaboom: <br> To ask students to answer both conceptual questions and practical <br> problems in Badaboom to check their understanding | Groups | 10 <br> minutes |
| Self-reflect on <br> lesson |  | YoTeach: <br> Students to write or type what they have learnt | Individuals | 5 <br> minutes |

