



Apply graphical methods in solving problems

Achieved	Merit	Excellence
Apply graphical methods in solving problems.	Apply graphical methods, using <u>relational thinking</u> , in solving problems.	Apply graphical methods, using <u>extended abstract thinking</u> , in solving problems.
<p><u>Relational Thinking</u> - Involves selecting and carrying out a logical sequence of steps, connecting different concepts or representations, demonstrating understanding of concepts, and relating findings to a context.</p>		
<p><u>Extended Abstract Thinking</u> - Involves devising a strategy, identifying relevant concepts, developing logical reasoning, forming generalizations, and communicating mathematical insight.</p>		

Graphical Methods

The methods included in this standard are related to:

- Linear functions and their graphs
- Quadratic functions and their graphs
- Simple trigonometric functions and their graphs
- Transformations of the above graphs (e.g. translations, reflections, stretches)
- Connecting the structure of the functions to their graphs
- Properties of functions (may include domain and range)

Problems

The problems will be set in real-life or mathematical contexts and provide opportunities to apply the graphical knowledge and methods.

Key Vocabulary

Students are expected to understand and use terms related to graphical methods, such as:

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|---|--|---|
| <input type="checkbox"/> Linear function | <input type="checkbox"/> Range | <input type="checkbox"/> Translation & Reflection |
| <input type="checkbox"/> Quadratic function | <input type="checkbox"/> Intercept | <input type="checkbox"/> Equation |
| <input type="checkbox"/> Trig Function | <input type="checkbox"/> Maximum/minimum | <input type="checkbox"/> Sketch |
| <input type="checkbox"/> Domain | <input type="checkbox"/> Asymptote | <input type="checkbox"/> Interpret |

