

<b>Measurement</b>
General Outcome: <i>Develop spatial sense and proportional reasoning.</i>
<b>Specific Outcomes</b> <i>It is expected that students will:</i>
11A.M.1. Solve problems that involve the application of rates. [CN, PS, R, T]
11A.M.2. Solve problems that involve scale diagrams, using proportional reasoning. [CN, PS, R, T, V]
11A.M.3. Demonstrate an understanding of the relationships among scale factors, areas, surface areas and volumes of similar 2-D shapes and 3-D objects. [C, CN, PS, R, T, V]

<b>Statistics</b>
General Outcome: <i>Develop statistical reasoning.</i>
<b>Specific Outcomes</b> <i>It is expected that students will:</i>
11A.S.1. Demonstrate an understanding of normal distribution, including: <ul style="list-style-type: none"> <li>• standard deviation</li> <li>• z-scores.</li> </ul> [CN, PS, T, V]
11A.S.2. Interpret statistical data, using: <ul style="list-style-type: none"> <li>• confidence intervals</li> <li>• confidence levels</li> <li>• margin of error.</li> </ul> [C, CN, R, T]

<b>Geometry</b>
General Outcome: <i>Develop spatial sense.</i>
<b>Specific Outcomes</b> <i>It is expected that students will:</i>
11A.G.1. Derive proofs that involve the properties of angles and triangles. [CN, R, T, V]
11A.G.2. Solve problems that involve the properties of angles and triangles. [CN, PS, T, V]
11A.G.3. Solve problems that involve the cosine law and the sine law, including the ambiguous case. [CN, PS, R, T]

<b>Relations and Functions</b>
General Outcome: <i>Develop algebraic and graphical reasoning through the study of relations.</i>
<b>Specific Outcomes</b> <i>It is expected that students will:</i>
11A.R.1. Model and solve problems that involve systems of linear inequalities in two variables. [CN, PS, T, V]
11A.R.2. Demonstrate an understanding of the characteristics of quadratic functions, including: <ul style="list-style-type: none"> <li>• vertex</li> <li>• intercepts</li> <li>• domain and range</li> <li>• axis of symmetry.</li> </ul> [CN, PS, T, V]

<b>Logical Reasoning</b>
General Outcome: <i>Develop logical reasoning.</i>
<b>Specific Outcomes</b> <i>It is expected that students will:</i>
11A.L.1. Analyze and prove conjectures, using inductive and deductive reasoning, to solve problems. [C, CN, PS, R, T]
11A.L.2. Analyze puzzles and games that involve spatial reasoning, using problem-solving strategies. [CN, PS, R, T, V]

<b>Mathematics Research Project</b>
General Outcome: <i>Develop an appreciation of the role of mathematics in society.</i>
<b>Specific Outcomes</b> <i>It is expected that students will:</i>
11A.RP.1. Research and give a presentation on a historical event or an area of interest that involves mathematics. [C, CN, ME, PS, R, T, V]

## Processes:

C – Communication  
PS – Problem Solving  
V – Visualization

CN – Connections  
R – Reasoning

ME – Mental Mathematics and Estimation  
T – Technology