

## Outcome Correlation: Grain Bins Mathematics 10C

### ASSESSMENT AND EVALUATION OF STUDENT LEARNING

This performance task is designed to gather assessment evidence for the following learner outcomes (shown in Times New Roman font) from the Alberta Mathematics Program of Studies (2008).

**Note:** Where text is grey, that portion of the outcome is not specifically addressed in this task.

Learner Outcomes		Criteria for Evaluation *
<b>General Outcome – Measurement</b> Develop spatial sense and proportional reasoning.		Students provide evidence of their learning as they:
Strand	Specific Outcomes	
Measurement	1. Solve problems that involve linear measurement, using: <ul style="list-style-type: none"> <li>• SI and imperial units of measure</li> <li>• estimation strategies</li> <li>• measurement strategies</li> </ul> [ME, PS, V]  3. Solve problems, using SI and imperial units, that involve the surface area and volume of 3-D objects, including: <ul style="list-style-type: none"> <li>• right cones</li> <li>• right cylinders</li> <li>• right prisms</li> <li>• right pyramids</li> <li>• spheres.</li> </ul> [CN, PS, R, V]	<ul style="list-style-type: none"> <li>• determine volume of 3-D composite objects</li> <li>• determine dimensions of 3-D composite objects to achieve a given volume</li> </ul>
Measurement	2. Apply proportionate reasoning to problems that involve conversions between SI and imperial units of measure. [CN, ME, PS]	<ul style="list-style-type: none"> <li>• convert between SI units and imperial units</li> </ul>

\* Criteria statements appear again in the first column of the evaluation tools (checklists, rating scales and/or rubrics) and are the basis on which student evaluation is made relative to the learner outcomes.

Mathematical processes are skills that are addressed at all grade levels. They are not taught as discrete skills, but are integrated into the specific outcomes. Links to the processes identified in the Program of Studies are indicated within square brackets after the specific outcomes.

Throughout this task, the following mathematical processes are specifically addressed:

- Communication: communicate in order to clarify, reinforce and modify ideas.
- Connections: connect mathematical ideas to each other or to the real world.
- Problem Solving: develop and apply new mathematical knowledge through problem solving.
- Reasoning: use reasoning skills to analyze a problem, reach a conclusion and justify or defend that conclusion.
- Technology: utilize technology as a tool for learning, problem solving and presenting solutions.
- Visualization: understand mathematical concepts and make connections among them.