

## Outcome Correlation: The Footprint 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 – Relations and Functions</b> Develop algebraic and graphical reasoning through the study of relations.		Students provide evidence of their learning as they:
<b>Strand</b>	<b>Specific Outcomes</b>	
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]	<ul style="list-style-type: none"> <li>• collect data*</li> <li>• solve problem</li> </ul> *Note: If students are using the given data chart, this criterion will not be addressed.
Relations and Functions	4. Describe and represent linear relations, using: <ul style="list-style-type: none"> <li>• words</li> <li>• ordered pairs</li> <li>• tables of values</li> <li>• graphs</li> <li>• equations</li> </ul> [C, CN, R, V]	<ul style="list-style-type: none"> <li>• draw a graph from a set of ordered pairs</li> </ul>
Relations and Functions	5. Determine the characteristics of the graphs of linear relations, including the: <ul style="list-style-type: none"> <li>• intercepts</li> <li>• slope</li> <li>• domain</li> <li>• range</li> </ul> [CN, PS, R, V] 7. Determine the equation of a linear relation, given: <ul style="list-style-type: none"> <li>• a graph</li> <li>• a point and the slope</li> <li>• two points</li> <li>• a point and the equation of a parallel or perpendicular line to solve problems</li> </ul> [CN, PS, R, V]	<ul style="list-style-type: none"> <li>• determine equations of linear relations</li> <li>• solve problem</li> </ul>

### Mathematical Processes \*\*

Communication	Students are expected to: <ul style="list-style-type: none"> <li>• communicate in order to learn and express their understanding</li> </ul>	<ul style="list-style-type: none"> <li>• communicate findings</li> </ul>
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\* 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.
- Visualization: understand mathematical concepts and make connections among them.