

## Outcome Correlation: Facebook Users Mathematics 30-2

### 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.

| <b>Learner Outcomes</b>                                                                                                       |                                                                                                         | <b>Criteria for Evaluation *</b>                                                                                                                    |
|-------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>General Outcome – Relations and Functions</b><br>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>                                                                                |                                                                                                                                                     |
| <b>Relations and Functions</b>                                                                                                | 6. Represent data, using exponential and logarithmic functions, to solve problems.<br>[C, CN, PS, T, V] | <ul style="list-style-type: none"> <li>graph data, and determine the exponential or logarithmic function that best approximates the data</li> </ul> |
| <b>Relations and Functions</b>                                                                                                | 5. Solve problems that involve exponential equations.<br>[C, CN, PS, R, T]                              | <ul style="list-style-type: none"> <li>calculate the number of users and discuss the reasonableness of the answer</li> </ul>                        |
| <b>Relations and Functions</b>                                                                                                | 4. Demonstrate an understanding of logarithms and the laws of logarithms.<br>[C, CN, ME, R]             | <ul style="list-style-type: none"> <li>solve an exponential equation</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.
- Mental Mathematics and Estimation: estimate and determine reasonableness of calculated values.
- Problem Solving: develop and apply new mathematical knowledge through problem solving.
- Reasoning: explore, analyze, generalize and conclude.
- Technology: tool for assisting with data analysis.
- Visualization: create, interpret and describe a visual representation.