SIT190 - Page - Week 3 - OnTrack Assessment

Trimester 1, 2024

Task 1: Give-it-a-go and Give-it-a-go-again

The purpose of the Give-it-a-go and Give-it-a-go-again quizzes is to help you identify what you have understood and to identify any areas that you need further help in. This task is about reflecting on those attempts and acting on them to achieve your learning goals.

You must attempt all questions and achieve at least 60% in the Give-it-a-go-again quiz.

Usually we would expect an improvement in the Give-it-a-go-again quiz compared to the Give-it-a-go quiz.

1. Attempt the Give-it-a-go quiz early in the week. Take a screenshot of the results.
   Note: your screenshot should include the summary of results including the session ID.

2. Review your quiz results.

   (a) If you did not achieve full marks, identify a question that you need answered in order to understand the material.

   (b) Identify and implement a strategy to address this question. For example, you might submit a question to the weekly discussion forum, visit the HelpHub or Maths Mentors, ask the unit chair, or do further reading.

   (c) Describe the question you identified and your strategy for addressing it (2-4 sentences).

3. Attempt the Give-it-a-go-again quiz later in the week. Take a screenshot of the results.
   Note: your screenshot should include the summary of results including the session ID. Remember, you must achieve at least 60% in this quiz.

4. Submit a short reflection (approximately 80 words) on your improvement between the Give-it-a-go and Give-it-a-go again quizzes. Explain how your strategy helped. If it was not useful, explain why and suggest what you might do next time.

Please note that in this task, you will not be penalised for not achieving full marks in either the Give-it-a-go or the 3.2 Give-it-a-go-again quizzes.

Task 2: Matrices

$$A = \begin{bmatrix} 28 & 1 \\ 3 & \frac{1}{4} \end{bmatrix} \quad B = \begin{bmatrix} 3 & 0 \\ -6 & 0 \\ 2 & 7 \end{bmatrix} \quad C = \begin{bmatrix} 0 & 3 & -5 \\ 6 & 0 & 4 \end{bmatrix} \quad D = \begin{bmatrix} 3 & \frac{1}{4} & \frac{5}{2} \\ \frac{3}{6} & \frac{1}{2} & \frac{3}{4} \end{bmatrix} \quad E = \begin{bmatrix} 6 & 4 \\ -5 & 3 \end{bmatrix}$$

1. Simplify each of the following expressions when possible. If the addition or multiplication cannot be done explain why. (Note: You **must** give the order of the matrix as part of your explanation.)

   (a) $A + D$

   (b) $A + E$

   (c) $B + D$

   (d) $A \times B$

   (e) $B \times A$

(f) $C \times A$

(g) $12D$

(h) $C - 12D$

Submission

To successfully complete this assessment, you must submit:

Task 1 Quizzes, Question, Strategy and Reflection

1.1 Screenshot of results of Give-it-a-go quiz.

1.2 Screenshot of results of Give-it-a-go-again quiz (You must achieve at least 60% in this quiz).

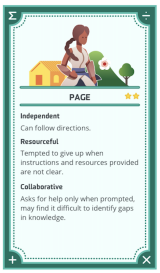
1.3 Describe the question you identified and your strategy for addressing it (2-4 sentences).

1.4 Submit a short reflection (approximately 80 words) on your improvement between the Give-it-a-go and Give-it-a-go again quizzes.

Task 2 Matrices

2.1(a-h) For each expression,

- When the matrices can be added or multiplied, give the simplified expression showing all working.
- When matrix-addition or matrix-multiplication cannot be done, explain why. Your explanation should refer to the order of each matrix in the expression.



Useful Resources

Week 3 material will help you complete these tasks including:

- Watch, read and think 3.2 (includes a video on matrix multiplication)
- Treasure Chest (Adding matrices and Multiplying Matrices)

Note: these tasks will also require you to use the algebra we revised in Week 1.