



اَوَّلُهُمْ سَيِّدٌ لِّتِلْكَ لَوْ كُنَّا مُنَازِلًا
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SMART CALCULATOR 5.0

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EXECUTIVE SUMMARY

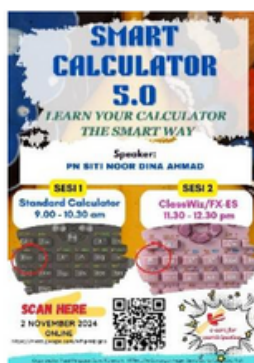
Smart Calculator 5.0 program is intended to support the first semester pre-diploma and diploma students of different background in using their calculator smartly to solve mathematics questions. Through the activities that were carried out, students are able to gain extra understanding regarding the usage of their scientific calculator. Furthermore, this program is a platform for them to be better prepared to tackle their upcoming quizzes, mid-terms, and final exams.

INTRODUCTION

The Smart Calculator 5.0 program was designed and conducted to support students in using scientific calculator. Participant of students are specifically those enrolled in courses such as MAT013, MAT037, MAT083, MAT133, and MAT112 comprising of Pre-Science, STEM C, Pre-Islamic Studies, and Diploma programs in UiTM Cawangan Negeri Sembilan, Kampus Kuala Pilah. A total of 195 students attended this program which was held on November 2, 2024, via the Google Meet platform, aiming to equip students with a deeper understanding of how to effectively use scientific calculators, an essential tool in their academic journey, especially in mathematics and calculus-related courses.

Scientific calculators, particularly models like Casio ClassWiz, play a crucial role in the learning process for students studying mathematical concepts. These devices enable students to visualize, compute, and explore basic and multiple equations as well as formulas in a user-friendly manner. However, many students find it challenging to utilize the full potential of these calculators. Hence, the Smart Calculator 5.0 program targeted these gaps by offering practical sessions that demonstrated the functionality of various Casio scientific calculators. This helped bridge the divide between theory and application, empowering students to use their calculators effectively during quizzes, mid-term exams, and the final exam.

In addition to addressing the immediate academic needs of the students, the program also focused on enhancing their problem-solving skills by incorporating real examples and calculus-related problems that required calculator assistance. This hands-on approach helped students not only grasp the concepts of mathematics more efficiently but also boosted their confidence in applying these tools in other future courses. By fostering this proficiency with scientific calculators, the program contributed to the holistic development of students' mathematical understanding and problem-solving abilities, which are essential in university-level courses and beyond.



(A)



(B)

Figure 1. A) Smart Calculator 5.0 poster invitation and B) Online participant

RESULTS /ACHIEVEMENTS

The Smart Calculator 5.0 program was carried out successfully, and all the objectives set for the event were achieved. Although the program was conducted online, student feedback was overwhelmingly positive, with participants expressing appreciation for the clarity and comprehensiveness of the sessions. Throughout the program, students exhibited strong commitment and active engagement, participating in both theoretical and practical aspects of the sessions.

Additionally, the program was structured into two key sessions: one focused on the Casio ClassWiz scientific calculator and the other models of Casio scientific calculators. This dual approach ensured that students from various courses, who may have been using different models, were able to access relevant information suited to their specific needs. The hands-on exercises and walkthroughs of complex functions also contributed to a deeper understanding of how to use the calculators effectively during examinations and coursework. Moreover, this program not only helped students become proficient in using their calculators for academic tasks, but also enhanced their ability to use these tools in future courses. The feedback from students were gathered through Google form and their overall response of the workshop were recorded as in Figure 2.



Figure 2: Students feedback for the Smart Calculator 5.0

CONCLUSION

Smart Calculator 4.0 addresses essential needs and offers valuable tools for overcoming mathematical challenges by prioritizing education, accuracy, efficiency, and confidence-building. The outcome of the program shows that there is an improvement in the pre-diploma and diploma student's calculator proficiency and their confidence level, particularly those who find mathematics challenging. Thus, this program has successfully shown that by integrating calculator into educational practices, eventually will lead to enhanced precision, efficiency, and confidence for all students.

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