BRAINFORMS

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“BrainForms” is an innovative app designed to support young people's mathematical development so they can improve their quantitative skills. In this sense, with the availability of an automatic calculation tool for the most diverse mathematical and physical formulas and the detailed step-by-step guide to reach the desired result, it is expected that the user will be able to understand the entire process of the calculations that give rise to a result final, so that they can carry out these same calculations on their own, consolidating their practical knowledge. In addition to automatic calculations, BrainForms also offers detailed explanations related to each formula available in its system, prioritizing objectivity and coherence. The application seeks to provide its users with a theoretical and solid context about the usefulness of each of its formulas, this allows that students understand not only how to apply a formula, but also why it is relevant and where it can actually be used in practice in their daily lives, for example. Continuing, for training and assessment of learning progress, BrainForms presents questionnaires subdivided according to the content and level of difficulty desired by the user, allowing students to test their skills developed while using the application and monitor their evolution systematically. Regular practice through these quizzes is essential for consolidating knowledge and improving mathematical skills. Furthermore, to make the user experience even more engaging, it is plausible to implement a field with educational games, which seek to challenge users in a playful way, encouraging learning while having fun. Through these mini games, the aim is to make mathematical learning more enjoyable, as well as improving the user's connection and interaction with the exact area. Therefore, the BrainForms project is carried out systematically, making it possible to add new future features, always considering the needs of its users. Aiming at its graphical interface, the characterization of simplicity and objectivity in the layout are essential characteristics in this development, as such definitions allow for a more pleasant environment for the user and, thus, make their experience lighter and less tiring at the mercy of more consistent learning. In short, BrainForms is an application that aims to revolutionize the teaching and learning of mathematics and physics. Its comprehensive approach, which includes step-by-step automatic calculations, detailed theoretical explanations, quizzes andeducational games, offers users an effective and engaging way to acquire and apply quantitative knowledge. By eliminating barriers and making learning accessible and interesting, BrainForms' main focus is to play an important role in reducing the fear that many young people have regarding exact science subjects. Therefore, it is hoped that the application represents a significant step towards more effective teaching and that it empowers students to face mathematical and scientific challenges with confidence and enthusiasm.

Keywords: Education; Calculations; App; Automation.

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