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Numerous fields employ applied mathematics to find solutions to a wide range of problems. Mathematical ideas and expertise are fascinating. Researchers never give up on completing such theories and knowledge to apply them to solving the most recent and challenging problems. Readers will find this issue to be a captivating investigation into applied mathematics from multiple aspects. For instance, some researchers finished the earlier mathematical theories and confirmed the classical mathematical conjecture, and other researchers created mathematical models to address frequently occurring situations. This issue may offer readers helpful information.

Some researchers are dedicated to finishing the mathematical theories that have already been proposed, and they focus on the earlier conjecture that has not been validated. A rational method for validating the Goldbach conjecture was proposed by Khare and Chitta[1]. Based on their reasoning, the Goldbach conjecture is validated in two instances. They succeeded in both validating and improving the conjecture, opening up new possibilities for research. Uygun[2] completed our understanding of almost α-cosymplectic (k,μ,ν)-manifolds by demonstrating a number of requirements for an invariant submanifold of α-cosymplectic (k, μ, ν)-manifolds to be fully geodesic.

Furthermore, some academics are dedicated to using mathematical techniques to resolve problems in reality. Due to the rise in the quantity and complexity of cyberattacks, Osa et al.[3] noted that intrusion detection in information technology and operational technology networks is crucial for current systems. As a result, they created a hybrid decision tree model by applying the stacking ensemble approach[3]. This is because the current focus of cybersecurity research is on creating models that are more effective than those that already exist[3]. Their research shows that mathematics is a powerful tool for solving problems of all kinds, offering people a wide range of advantages and conveniences.

Examining past mathematical ideas and conjectures can aid researchers in solving related problems and provide readers with a deeper understanding of a particular area of mathematics. Numerous difficulties can be solved with mathematical techniques,

which not only improve people's lives and quality of work but also exemplify the powerful nature of mathematics.

Last but not least, we deeply appreciate the authors' permission to authorize us to share their insightful thoughts.

Conflict of interest

The author declares no conflict of interest.

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