Math League:the 12th week

Mathematics in Biology: An Overview

Mathematics isn't just for solving equations it also plays a crucial role in understanding biology the science of living things by using mathematical methods scientists can explore how biological systems work and make predictions about them

In population biology math helps predict how animal populations grow or shrink scientists use equations to model how animals reproduce and how changes in their environment affect their numbers for instance simple formulas can show how many animals might be born each year or how a lack of food can decrease their population in disease studies math is used to track how illnesses spread among people and to plan ways to stop outbreaks mathematical models can show how diseases move from person to person and help create effective vaccines or treatments additionally in genetics math helps us understand how traits are inherited from parents to their offspring for example using probability scientists can predict the likelihood of certain traits appearing in the next generation

Mathematics is a powerful tool in biology that helps scientists analyze and solve real-world problems by applying math to biological questions researchers can make important discoveries about how living organisms function and improve our understanding of health and the environment this shows that math is not only about numbers but also about exploring and solving complex biological questions

Can you solve those problems!

$$x^2 + xy = 28$$

$$y^2 + xy = 21$$

$$xy = ?$$

If $\dfrac{\sqrt{3+x}+\sqrt{3+x}}{\sqrt{3+x}-\sqrt{3+x}} = 2$, then x is,