

The Pythagorean theorem is essential in environmental studies, helping calculate distances, establish spatial relationships, and aid in environmental engineering projects. By determining distances between habitats, it supports ecosystem connectivity analysis and conservation efforts. The theorem is also crucial in optimizing infrastructure placement for sustainability, aiding in minimizing environmental impact and maximizing efficiency. Additionally, it assists in predicting pollution dispersion patterns, enabling researchers to simulate pollutant spread and develop mitigation strategies to protect human health and ecosystems.