

Name _____

Quantum Computing and the Future of Cryptography

Open-Ended Response Questions

1. Imagine you are a cybersecurity expert explaining quantum computing's impact on cryptography to a group of students. How would you describe the importance of quantum-resistant encryption in protecting sensitive information?
2. Discuss the ethical considerations surrounding the development and use of quantum computing in the context of cybersecurity and cryptography. What measures should be taken to ensure responsible use?
3. Reflect on the real-world implications of quantum computing for industries like finance, healthcare, and government. How can these sectors prepare for the quantum future in terms of cryptography and security?
4. Predict the future of quantum-resistant cryptography. How do you envision it evolving as quantum computing technology continues to advance? What challenges and opportunities lie ahead?

