

Opdracht 1

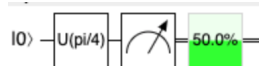
- <https://www.quantum-quest.nl/>
- Download & browse lecture notes "The Quantum Quest"
- Section 1.3: Get started with <https://www.quantum-quest.nl/quirky/>
- Measure a qubit:



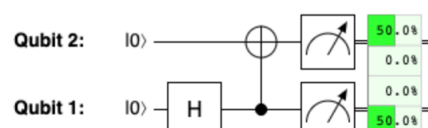
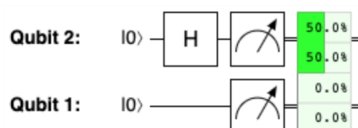
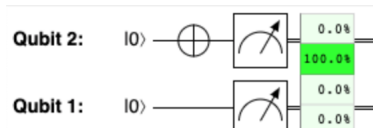
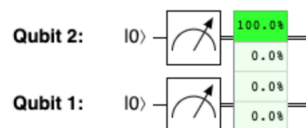
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Opdracht 2

- Create a Superposition:



- Play with two qubits: (Quirky Quest 2)

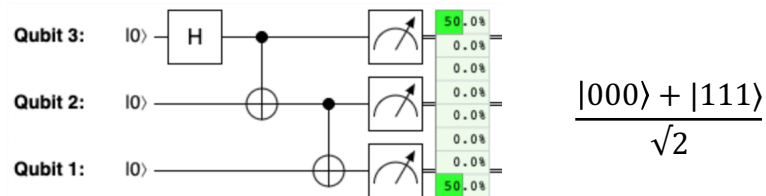


verstrengeling!

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Opdracht 3

- Create a GHZ state: (Quirkly Quest 3)



- Can you make a 4-qubit GHZ state?

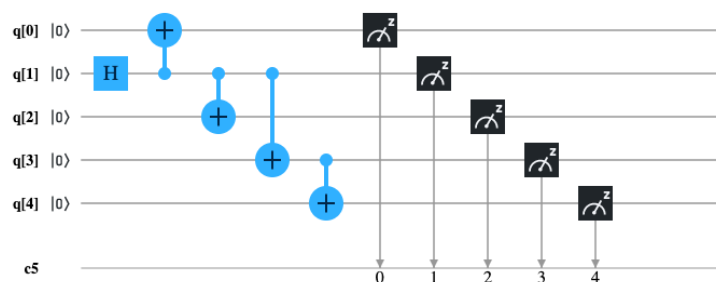
$$\frac{|0000\rangle + |1111\rangle}{\sqrt{2}}$$

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Opdracht 4

- Get access to the IBM Q experience:

<https://quantum-computing.ibm.com/login>



- Program this circuit and run it on a real quantum computer
- What does it do? How well does it work?

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