

## Chapter 17: Correctness, Runtime, and Success Probability

This section is already in the book plan, but it has not been written fully yet. The book owner can press Generate section to write this part with the language model connected to TheoryTrace.

Section plan:

Proves why Shor's algorithm works with high probability and why its runtime is polynomial in the number of bits of  $N$ . The chapter separates the quantum cost, the classical postprocessing cost, and the probability of choosing a useful random base.

### References

References will be added when this section is generated.

## Document information

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<b>Project</b>	Shor's Algorithm from First Principles
<b>Document</b>	Document 1.21
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