

F-LE Boom Town

Task

The population of Pittsburgh was about 12,600 in 1820. Between 1820 and 1840 the population grew exponentially, increasing by about 70% each decade.

- Construct an exponential function in the form $f(t) = ab^t$ that models the population t decades after 1820.
- According to your model, what was the population of Pittsburgh in 1825? What about 1839?
- According to your model, by what percentage did the population increase between 1826 and 1836?
- Explain the answer to part (c) in terms of the growth factor b .



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