

# Lagrange Interpolation

1. Suppose that Amanda owns a pool cleaning business. We know that she can clean 2 pools in 8 hours and 4 pools in 12 hours. Using Lagrange Interpolation on two points, create a function to model how fast she can clean pools.

2. Using the model you just got, how long does it take her to clean 10 pools. Does this seem like a reasonable model? Are there any values that produce unusual results?

3. Suppose we also know that Amanda can clean 6 pools in 24 hours. Using Lagrange Interpolation on three points, create a function to model how fast she can clean pools.

4. Using the model you just got, how long does it take her to clean 10 pools. Does this seem like a reasonable model? Are there any values that produce unusual results?