

Measuring Up

Level C

You have designed a picture that is shaped like a square.

The dimensions of your picture are 6 inches by 6 inches. You want to make it into a poster with dimensions of 13 inches by 13 inches.

The duplication machine has three settings: one setting that reduces the linear measure by a factor of 75%; one that enlarges the linear measure by a factor of 140%; and one that just makes identical copies or applies the factor of 100%.

How many multiple enlargements or reductions will you need to make in order to create a poster that has sides 13 inches long (accurate within five-hundredths)?

Explain what setting was used and how that changed the measurements of the copy for each step in the process.

