

Name: _____

MATH 100

Fall 2022

HW 10: Due 10/26

“Getting arrested, that makes people look guilty, even the innocent ones and innocent people get arrested every day.”

–James (Jimmy) McGill, Better Call Saul

Problem 1. (10pt) Jeffrey is writing a term paper. Currently, he has only written 8 pages. He returns from a writing break and then goes back to the paper. After an additional 5 hours of writing, he has written 20 pages.

- (a) Assuming Jeffrey writes at a constant rate, find the linear function representing the number of pages that he has written after t hours of writing.
- (b) How long after this break will it take him in total to write this 50 page term paper?

Problem 2. (10pt) Richard is a tailor. He uses an automated sewing machine can create custom labels on jackets. Every 4 hours, it is able to stitch 26 jackets. Richard sets the machine going during the night and when he comes in the next morning it has stitched 80 jackets.

- (a) Assuming the machine works at a constant rate, find the number of jackets, J , that the machine has stitched t hours from now.
- (b) How many total jackets has the machine stitched 8 hours after opening?