Math 120 A - Spring 2006
Mid-Term Exam Number Two
May 18, 2006
Answers

1. Version 1: Population in 1980 is 4000. Answer is the year 2030.

   Version 2: Population in 1980 is 3000. Answer is the year 2055.714 (or just 2055).

2. Version 1: 278.989 m to the east.

   Version 2: 45.6615 m to the east.

3. Version 1: 2.411765 hours per period.

   Version 2: 3.375061 hours per period.

4. Version 1:

   (a)

   $$g(x) = \begin{cases} -3x - 5 & \text{if } x \leq -2 \\ x + 3 & \text{if } -2 \leq x \leq 1 \\ 5x - 1 & \text{if } x \geq 1 \end{cases}$$

   (b) $x = -8/3$ and $x = 0$

   Version 2:

   (a)

   $$g(x) = \begin{cases} -4x - 1 & \text{if } x \leq -3 \\ -x + 8 & \text{if } -3 \leq x \leq 2 \\ 3x & \text{if } x \geq 2 \end{cases}$$

   (b) $x = 0$ and $x = 8/3$.