Math 120 A, B Winter 2012
Mid-Term Exam Number Two
February 23, 2012
Answers

There were two versions of the exam.
Version A: In problem 1, the A population increases 10% every 6 years.

1. 33.350039 years after 1990

2. (a) 17.95075 cm (b) The side length should be zero.

3. (a) $w = f(t) = 4 + 0.15t$ (b) $0 \le t \le 33.333$ (c) $t = f^{-1}(w) = \dfrac{w - 4}{0.15}$

4. 90 meters

Version B: In problem 1, the A population increases 13% every 8 years.

1. 36.8857 years after 1990

2. (a) 29.173839 cm (b) The side length should be 75cm.

3. (a) $w = f(t) = 5 + t/3$ (b) $0 \le t \le 24$ (c) $t = f^{-1}(w) = 3(w - 5)$

4. 120 meters