# Math 120 A Autumn 2011
# Mid-Term Exam Number Two
# November 17, 2011
# Answers

There were two versions of the exam.

In version A, Bianca starts from (3,4).

1. (a) $x = 3 - \frac{11}{8}t, y = 4 - \frac{1}{4}t$ (b) $x = -5 + t, y = 3 - \frac{1}{2}t$ (c) 3.2876 seconds after they start.

2. (a) 7.02985 cm (b) 2.8 days from today.

3. 47.4085 years after 2000.

4. (a) $g^{-1}(x) = 5 - \sqrt{x + 6}$ (b) $x = 8 \pm 2\sqrt{3}$.

In version B, Bianca starts from (7,-1).

1. (a) $x = 7 - \frac{1}{2}t, y = -1 + \frac{3}{4}t$ (b) $x = 10 + \frac{1}{4}t, y = 5 - \frac{5}{2}t$ (c) 1.55056 seconds after they start.

2. (a) 13.43396 cm (b) 13.5 days from today.

3. 63.7737 years after 2000

4. (a) $g^{-1}(x) = 8 - \sqrt{x + 33}$ (b) $x = 10 \pm \sqrt{42}$