

Math 120 - Autumn 2010  
Final Exam  
December 11, 2010  
Answers

1. 1.4288665 hours
2.  $(-19.690202, 77.538996)$
3. 350.14 revolutions per minute
4. (a) \$197.52 (b) 2071.30
5. (a)  $x = 4t, y = 3t$  (b)  $x = 1 + 2t, y = 2 + 3t$  (c) Anna and Burt are closest together  $1/2$  second after they start moving.
6. 4.5212829 years
7. 48.461538 years after 1970

8. (a)

$$h^{-1}(x) = \frac{5 - 4x}{-2x - 1}$$

(b)

$$k^{-1}(x) = 1 - \sqrt{\frac{x - 5}{2}}$$