## Math 120 - Autumn 2011 <br> Final Exam <br> December 10, 2011 <br> Answers

1. (a) The square should have side length $600 / 17$, and the rectangle should have height $450 / 17$ and width $900 / 17$. (b) 5625 square meters
2. 4.490555 feet
3. 10.1757 seconds
4. (a) $h^{-1}(x)=\frac{2 x}{14 x-7}$ (b) $f(x)=-2 x-6$ and $f(x)=2 x+2$
5. (a) 4.677586 hours (b) 11.198008 km
6. (a) $h(t)=\frac{32 t+2430}{t+135}$ with today represented by $t=0$ (b) 9.96211 days after today
7. 138.727 years after 2010
8. 10.933096 meters
