

Math 120 - Autumn 2006
Final Exam
December 9, 2006
Answers

1. Jo should set the price at \$14.956 to make the most money.
2. The radius of the wheel is 12.97 inches.
3. Gertrude is 138.4623 meters from her starting point.
4. (a)

$$h(g(2x)) = \begin{cases} 13 & \text{if } x \leq 5, \\ 2x + 4 & \text{if } x > 5 \end{cases}$$

- (b) The expression simplifies to $5a$.
5. The building is 493.54 feet tall.
6. 14.8094 hours.
7. 8.83 years.
8. (a) $x = 10 - 0.4580786t, y = 15 - 1.946834t$
(b) $x = 18 - \frac{17}{8}t, y = 3 - \frac{1}{4}t$
(c) 8.470588 seconds