

### Exam 3

| Question # | Orange Form<br>Spring 2007 | Answer  |
|------------|----------------------------|---|
| 1          | A                          | 17  |
| 2          | E                          | $x^2 - 13x + 40$  |
| 3          | B                          | $\begin{array}{ccccccc} \text{sign of } f(x) & - &   & + &   & - &   & + \\ \leftarrow & & & & & & & \rightarrow \\ & & -5 & & 4 & & 6 & \end{array}$ |
| 4          | C                          | $y = -5, y = 4$   |
| 5          | D                          | $\left(-\frac{1}{2}, 4\right)$  |
| 6          | D                          | $k = 3$   |
| 7          | E                          | $[-2, -1] \cup [1, 2]$  |
| 8          | C                          |   |
| 9          | B                          | $y = \frac{3}{2}(x+2)^2 - 1$  |
| 10         | A                          | $y = 4x + 1$  |
| 11         | D                          | $(-\infty, -3] \cup [1, 2]$   |
| 12         | C                          | $y = 2(x-2)^2 - 9$  |
| 13         | B                          | $x = 375$ feet  |
| 14         | A                          | $d(t) = \sqrt{36t^2 + 5625}$  |
| 15         | E                          | $C(t) = \begin{cases} 30x & x \leq 25 \\ 28x + 50 & x > 25 \end{cases}$   |