

Chapter 5

1. $y = -3(x + 4)^2 + 10$
2. a) LOS: $x = -4$ b) Vertex $(-4, 45)$ c) $y - int = 13$ d) Max
3. a) LOS: $x = 1$ b) Vertex $(1, 6)$ c) $y - int = 9$ d) Min
4. a) $x = \frac{5}{2}, 0$ b) $x = 2, -5$ c) $x = 2, -\frac{5}{2}$ d) $x = \pm 3, -\frac{7}{2}$
5. a) $x = \pm 3i\sqrt{2}$ b) $x = -9, 3$
6. a) $x = -5.05, 0.05$ b) $x = 2 \pm 5i$
7. a) $x = -4 \pm 4\sqrt{3}$ b) $x = 3 \pm \sqrt{19}$
8. a) 6.25 sec b) 655 ft c) 12.65 sec d) 0.36 and 12.14 sec
9. a) 80 parts per day b) Minimum costs are 3700
10. a) $22 + 14i$ b) 85