

Applications of Quadratic Functions

1. a) $f(3) = -8$

b) $x = 0,6$

c) $x = 1,5$

5 e) At about $t = 0.08$ seconds and
 $t = 4.9$ seconds

f) 50 ft

g) skip this

2. a) $x = 3 \pm \sqrt{10}$

b) $x = \frac{-3 \pm \sqrt{29}}{2}$

c) $x = \frac{2 \pm \sqrt{19}}{3}$

6 a) About 5.36 seconds later

b) skip this

d) $x = -3,9$

7. a) 83 ft.

e) $x = -4,8$

b) About 126 ft. high

f) $x = 3 \pm \sqrt{5}$

c) At $t = 4$ seconds

g) $x = \frac{11}{3}, \frac{23}{3}$

d) 109 ft.

h) $x = 3 \pm \sqrt{3}$

i) $x = 3 \pm \sqrt{7}$

3. The rectangle is about 3.87 ft x 7.75 ft.

4. The rectangle is about 6.79 ft x 12.79 ft

5 a) 44 ft

b) 140 ft

c) At times 1 sec and 4 seconds

d) ~~About 4.8 seconds and~~

d) 1.5 seconds and 3.5 seconds after being released