Practice Test on Quadratics Name: Key

1) $y = -16t^2 + 60t + 20$, represents the height of a ball in yards over time, t in seconds.

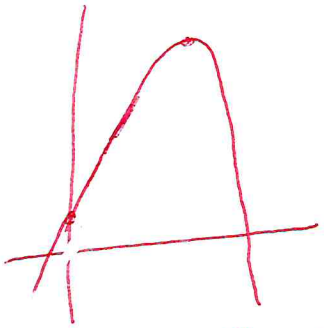
Define each variable. x= time (sec) y= ht of ball (yds)

a) During what time is the ball in the air?

The ball is in the air less than 4 sec

b) What is the maximum height of the ball?

The max ht is 76.25 yds



[-2, 8] by [-10, 100]

c) What is the reasonable domain and range?

D [0, 4] R [0, 76.25]

2) Simplify

a) (5 -2i) - (-5+6i)

5 - 2i + 5 - 6i

10 - 8i

b) (5 – 2i)(5 + 6i)

$25 + 30i - 10i - 12i^2$

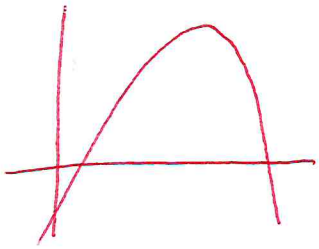
$25 + 20i - 12(-1)$

$25 + 20i + 12$

$37 + 20i$

3) Use the given data.

Time in hours	Depth of water
4	1
11	8
15	11
20	10



[-5, 50] by [-5, 20]

a) Write a quadratic equation to fit the model. $y = .057x^2 + 1.940x - 5.963$

b) Use the model to find the water depth after 24 hours. The water is 7.975 feet deep after 24 hrs

c) Find the time when the water is 4 feet deep.

The water is 4' deep at 27.961 hours + 6.289 hrs