

GRAPEFRUIT THROWN

(from p. 200 = 93)

$$y = H(x) = \text{Height}$$

$$x = \text{Length} \geq 0$$

$$y = -\frac{1}{10}x^2 + 3x + 6$$

a, GRAPH ON CALCULATOR

WINDOW

XMIN -10

XMAX 40

XSCAL 5

YMIN -10

YMAX 35

YSCAL 5

XRES 1

b, $y = H(x)$, feet

c, • What is starting height?

• Find height when length = 5

d, • Find $H(30)$

• Is it above a child of 5 feet?

e, Where does the grapefruit hit the ground?

f, What is Length at maximum height?

g, What is maximum height?