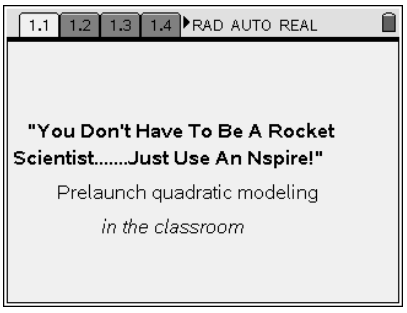
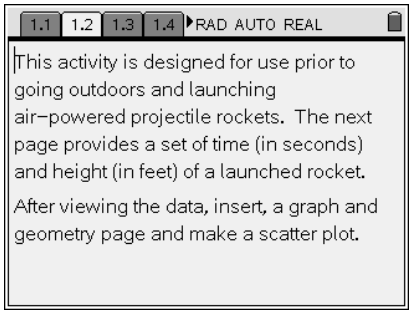
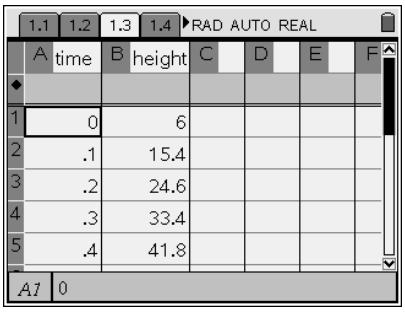
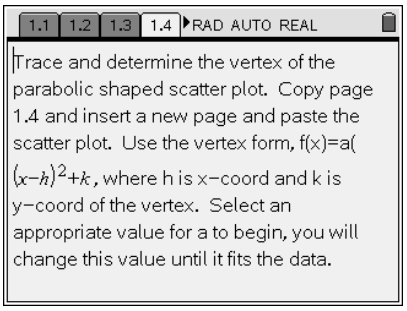
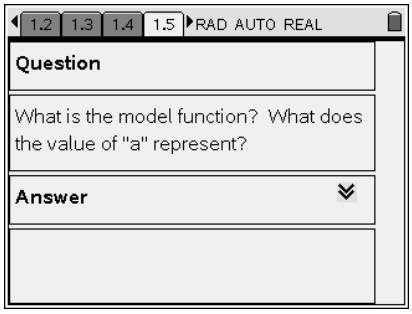
# Rocket Simulation Student tns.Screens

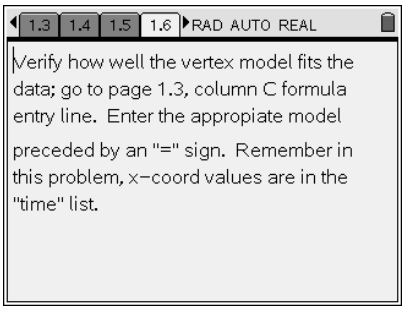


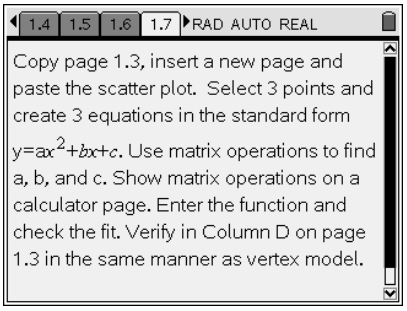



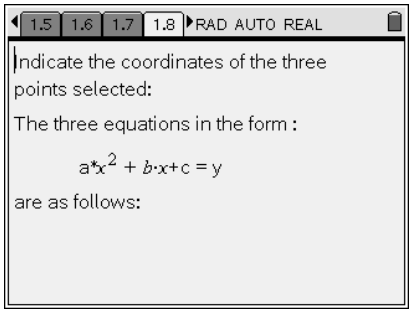



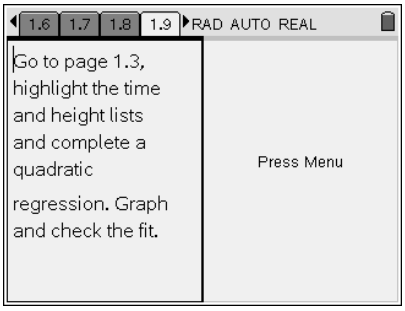



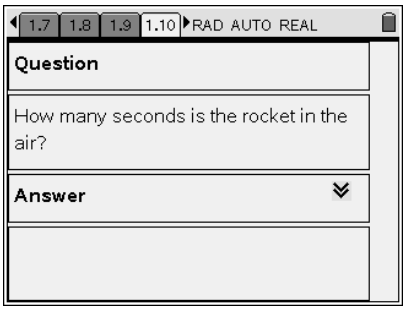



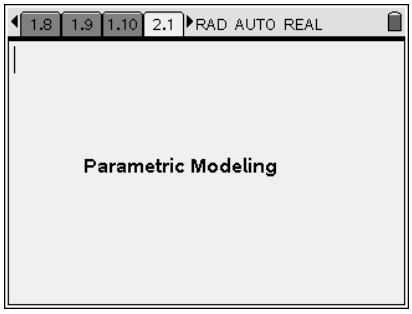



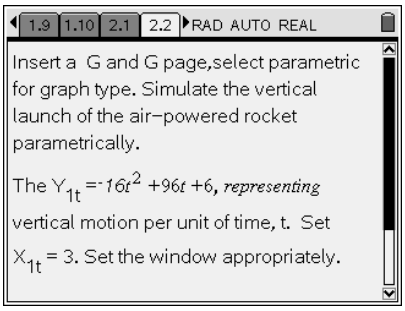



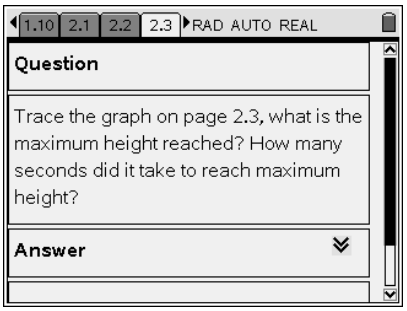



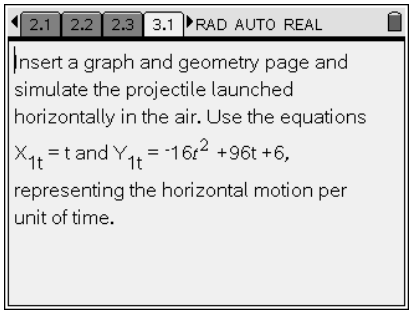



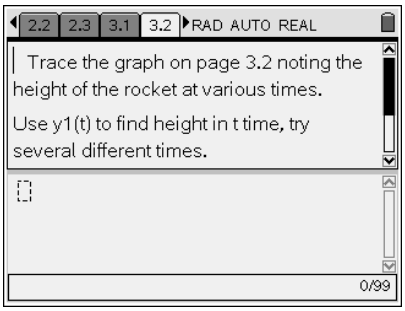



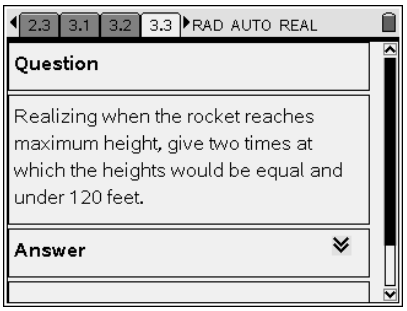



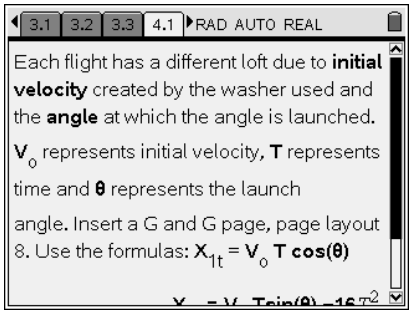



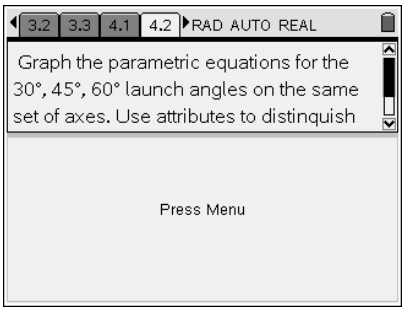

1.10 2.1 2.2 2.3 RAD AUTO REAL
Question
Trace the graph on page 2.3, what is the maximum height reached? How many seconds did it take to reach maximum height?
Answer

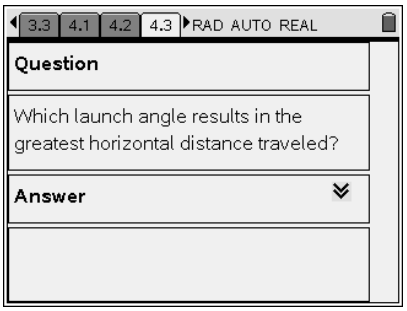

2.1 2.2 2.3 3.1 RAD AUTO REAL
Insert a graph and geometry page and simulate the projectile launched horizontally in the air. Use the equations
$X_{1t} = t$ and $Y_{1t} = -16t^2 + 96t + 6$,
representing the horizontal motion per unit of time.

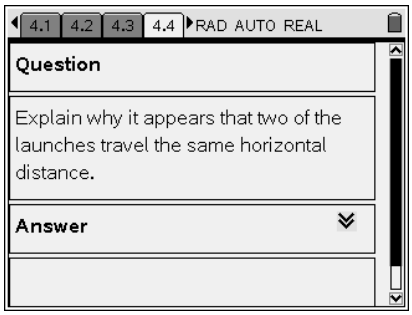

2.2 2.3 3.1 3.2 RAD AUTO REAL
Trace the graph on page 3.2 noting the height of the rocket at various times.
Use y1(t) to find height in t time, try several different times.
0/99


2.3 3.1 3.2 3.3 RAD AUTO REAL
Question
Realizing when the rocket reaches maximum height, give two times at which the heights would be equal and under 120 feet.
Answer


3.1 3.2 3.3 4.1 RAD AUTO REAL
Each flight has a different loft due to **initial velocity** created by the washer used and the **angle** at which the angle is launched.
$V_0$ represents initial velocity, **T** represents time and **θ** represents the launch angle. Insert a G and G page, page layout 8. Use the formulas: $X_{1t} = V_0 T \cos(\theta)$


3.2 3.3 4.1 4.2 RAD AUTO REAL
Graph the parametric equations for the 30°, 45°, 60° launch angles on the same set of axes. Use attributes to distinquish
Press Menu


3.3 4.1 4.2 4.3 RAD AUTO REAL
Question
Which launch angle results in the greatest horizontal distance traveled?
Answer


4.1 4.2 4.3 4.4 RAD AUTO REAL
Question
Explain why it appears that two of the launches travel the same horizontal distance.
Answer