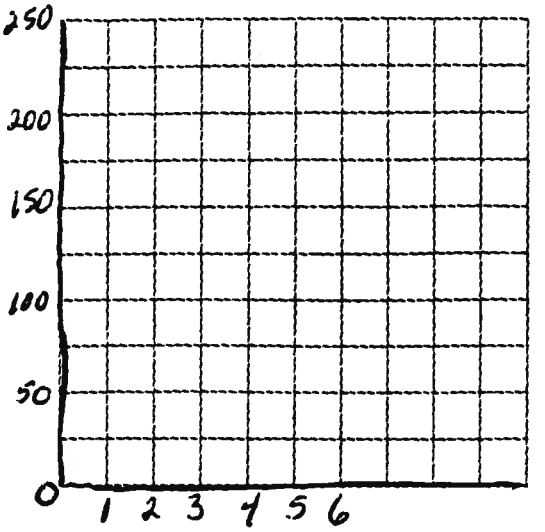
The quadratic relation $h = -5t^2 + 210$ describes the path of a rock that falls from the t
of a cliff, with h representing the height in metres and t representing the time in seconds

a) Complete the table. Then graph the relation.

$h = -5t^2 + 210$

t (s)	h (m)
0	
1	
2	
3	
4	
5	
6	



b) What is the height of the cliff? _____

c) How long will it take the rock to reach the bottom of the cliff?

Round your answer to the nearest tenth of a second. _____

d) How far from the bottom of the cliff is the rock when half of the time has passed?

_____

4. A penny is dropped into a tank of water at the water's surface. It falls to the bottom according to the relation $d = -3.5t^2 + 35$, where d is the depth of the water measured in metres and t is the time after the penny was dropped, measured in seconds.

a) Complete the table of values for the relation $d = -3.5t^2 + 35$. Round your answer to one decimal place.

time (s)	depth
0	
1	

b) How deep is the tank of water? _____

c) How long will it take for the penny to reach the bottom of the tank?

_____