

Name: _____ Period: _____ Date: _____

Graphing Motion of Projectiles

1. Harry accidentally falls out of a helicopter that is traveling at 200 m/s horizontally. He falls for 5 seconds before he hits the ground. Fill out the horizontal and vertical motion charts for the position, velocity, and acceleration of Harry as he falls.

Horizontal Motion (X-direction)

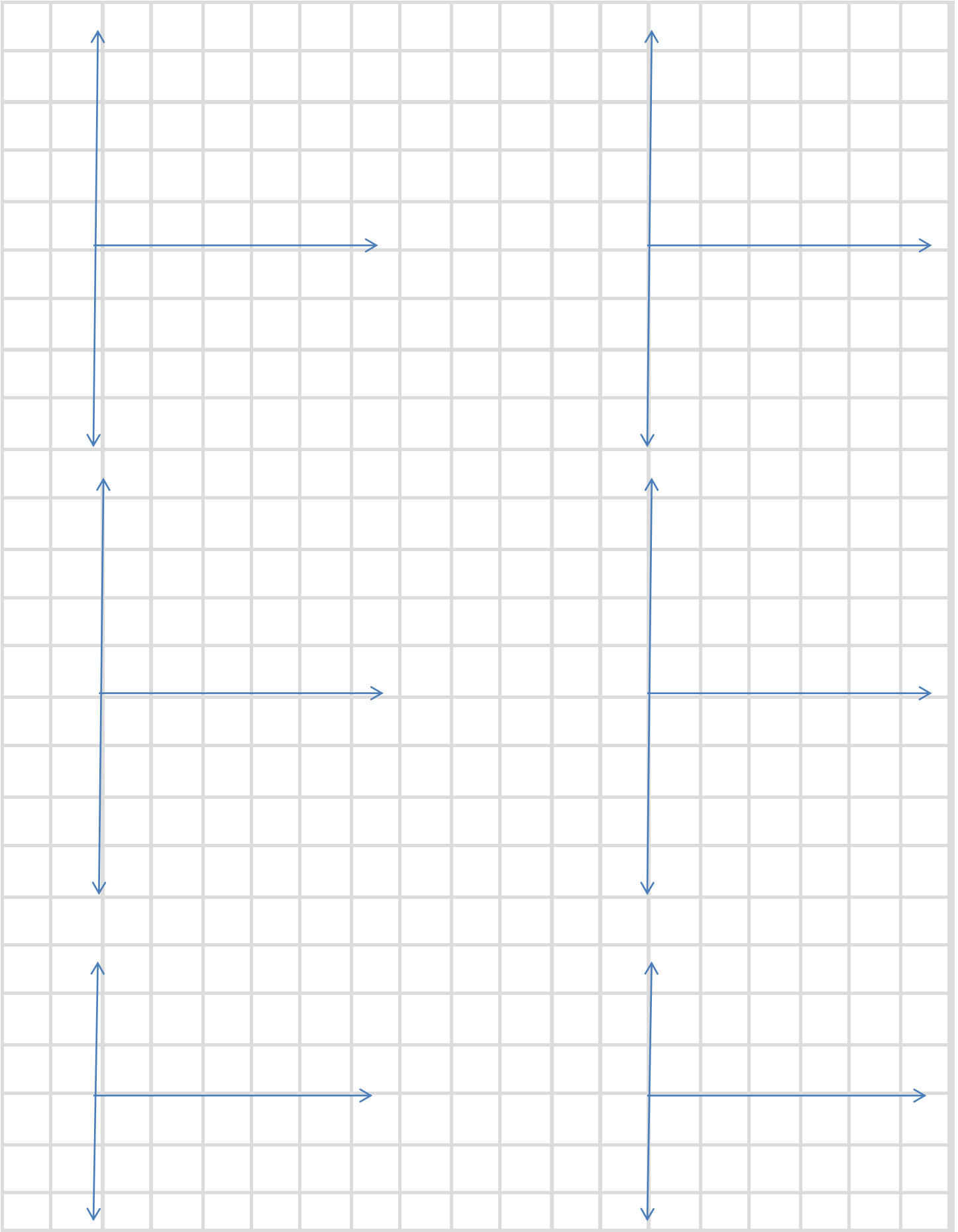
time (sec)	x position (meters)	x velocity (m/s)	x acceleration (m/s^2)
0			
1			
2			
3			
4			
5			

Vertical Motion (y-direction)

time (sec)	y position (meters)	y velocity (m/s)	y acceleration (m/s^2)
0			
1			
2			
3			
4			
5			

X – Direction Motion

Y – Direction Motion



2. Harry and Angela look from their balcony to a swimming pool below that is 10 meters from the bottom of their building. They estimate the balcony is 122.5 meters high. If Harry runs with a horizontal velocity of 2 m/s he will just land in the pool below. Fill out the horizontal and vertical motion charts for the position, velocity, and acceleration of Harry as he falls.

Horizontal Motion

time (sec)	x position (meters)	x velocity (m/s)	x acceleration (m/s ²)
0			
1			
2			
3			
4			
5			

Vertical Motion

time (sec)	y position (meters)	y velocity (m/s)	y acceleration (m/s ²)
0			
1			
2			
3			
4			
5			

X – Direction Motion

Y – Direction Motion

