Tori hits a golf ball straight off a cliff perfectly horizontally (with a launch angle of 0°.) She gives it an initial horizontal velocity of 35m/s.



1. If there were no gravity, draw where the ball would be for every second of travel. Use the scale 1 cm = 10 m.

2. When you're done, draw where the ball would be for every second of travel if it were *not* traveling horizontally. Use the same scale.

3. Now accurately plot where the ball that Tori hit will be as it travels with this initial velocity in a gravitational field.

A baseball-type person throws a ball perfectly horizontally off a cliff along the path indicated. At every point marked, draw the following vectors. Use a different color for each vector. Make your vectors longer or shorter relative to each other to indicate larger or smaller magnitudes. (Example, a line representing a high velocity will be longer than a line representing a low velocity.)

- 1. The vertical velocity
- 2. The vertical acceleration
- 3. The horizontal velocity
- 4. The horizontal acceleration.

Measure the angle with which the kiddo throws the javelin (relative to the horizontal.) The vertical component of the javelin's initial velocity is 35m/s.

1. What's the javelin's actual (resultant) initial velocity?

2. If there were no gravity, draw where the javelin would be for every second of travel. Use the scale 1cm = 10m.

3. Now accurately plot where javelin will actually be each second as it free falls below the gravity-free path. (Refer to page 1 if you need help.)



Some weird office chick throws a giant pencil (?) at an angle along the path indicated. At every point marked, draw the following vectors. Use a different color for each vector. Make your vectors longer or shorter relative to each other to indicate larger or smaller magnitudes. (Example, a line representing a high velocity will be longer than a line representing a low velocity.)

- 1. The vertical velocity
- 2. The vertical acceleration
- 3. The horizontal velocity
- 4. The horizontal acceleration.

