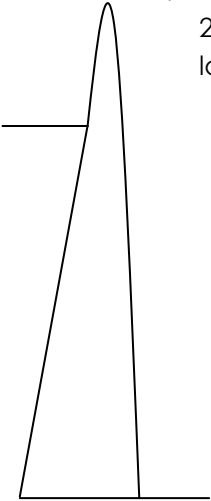


Vector Quiz

Make sure to show your work and put your final answers in a box!

/25

1. You are on top of a 20-m high cliff. You throw a tennis ball straight up and it takes 2.55 sec to reach its peak. Find the velocity the ball would be traveling at right before it lands at the **BOTTOM of the cliff**. (5 pts)



2. You are in a plane traveling at 50 m/s at 30° E of S and the wind is blowing at 30 m/s in the direction of 20° E of N. Find the velocity of your plane. Put your answer in the BOX.
a. GRAPHICALLY: (5 pts) **Label all angles and vectors!** (Use a scale 1cm=10 m/s)

R=

Name _____ Hour _____

FORM C

3. You decide to take a walk in the woods. You first walk **6 m at 20° W of S**, and then **4 m at 40° W of N**. Find your displacement. Put your answer in the BOX please.

a. **Graphically** (5 pts) *Think about this first so you are sure it will fit on your paper.*

R=

- b. **By resolution into components** (10 pts) – show all 3 triangles and put components in the box!

Ay = _____

Ax = _____

By = _____

Bx = _____

Ry = _____

Rx = _____

R = _____

Angle = _____

R=