What is the ground speed of a fish that swims A m/s east, in a river that flows south at B m/s?

Sqrt(A^2 + B^2)

A car going V m/s accelerates at A m/s^2 for T seconds. How many meters does it travel?

X = VoT + 1/2AT^2

You walk X meters away from an apartment building at Z degrees, how far away is grandma?

X/cosZ

To find the horizontal distance to a floating balloon that was H meters up, angle is Z degrees, how far would the student have to walk to get directly beneath the balloon?

H/tanZ

What is the magnitude of the vector sum of these two vectors: X1 Newtons at O1 degrees and X2 Newtons and O2 Degrees (Use picture)

The Y component of a vector is X m/s, and its magnitude is Y m/s, what is the angle?

Sin inverse(X/Y)

What is the angle of the vector sum of these two vectors: (use website)

A rock on a string is swung in a circle. What is the length(radius) of the string?

A = 4(Pi^2)\*r/T^2

A rain cloud that is X meters away is Y degrees above the horizontal. What is the height above the ground?

sinY \* X

A magnetic levitation train in China, what is the acceleration?

Vf^2 = Vo^2 + 2AX

A rocket flying between the ISS, what is its velocity just before it fired its thrusters?

Vf = Vo + at

How many seconds will it take a car to stop if its going kh/hr

V \* 1000 / 3600 / A

A rider on a Ferris wheel completes one circle every second. What centripetal acceleration does the rider feel?

(r/t\*2Pi)^2 / r

A Dirigible flies at X mph east, but the wind is south Y mph, what is the angle of the dirigible’s ground speed? (Tan inverse (Y/X)