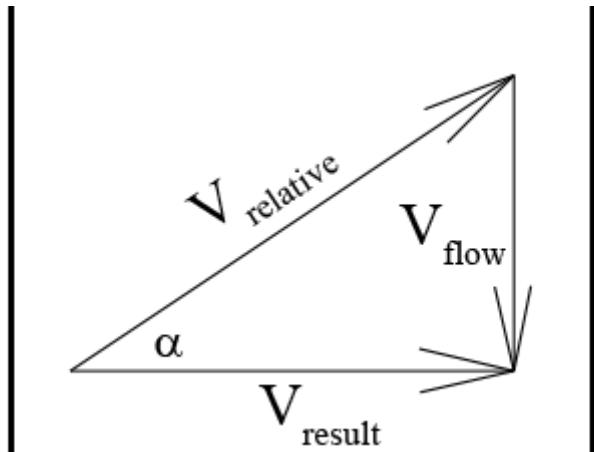


Question #61913, Physics / Mechanics | Relativity

A swimmer wants to reach to a point just opposite on the bank of river. How should he swim and why?

**Solution**



The swimmer's velocity relatively to the water should be directed at the angle  $\alpha$ , so that its component along the water flow will be cancelled out by the water flow velocity. The angle can be determined as:

$$\alpha = \arcsin\left(\frac{v_{flow}}{v_{relative}}\right)$$