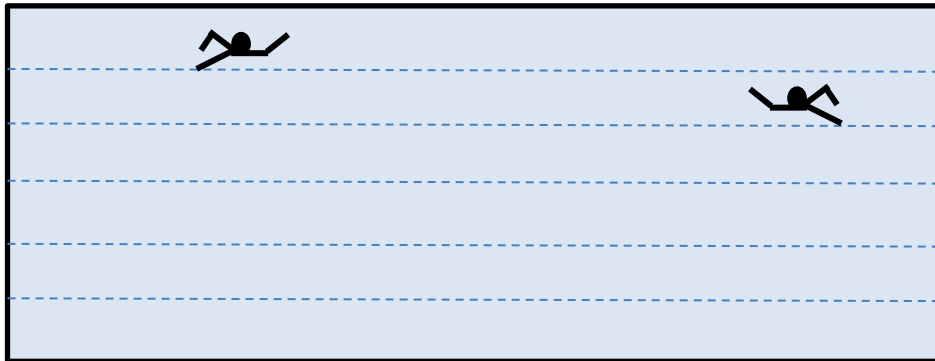


## Swimming

I go swimming with a friend, Carl, who swims faster than me.

We set off together at one end of the pool.



How much faster than me is Carl swimming if I meet him half way up the pool as he is swimming back?

What if I meet him a third the way up the pool?

What if I meet him two thirds the way up the pool?

If Carl swims four times faster than me, where do we meet?

Find a general formula for how far up the pool we would meet if Carl swims  $k$  times faster than me.