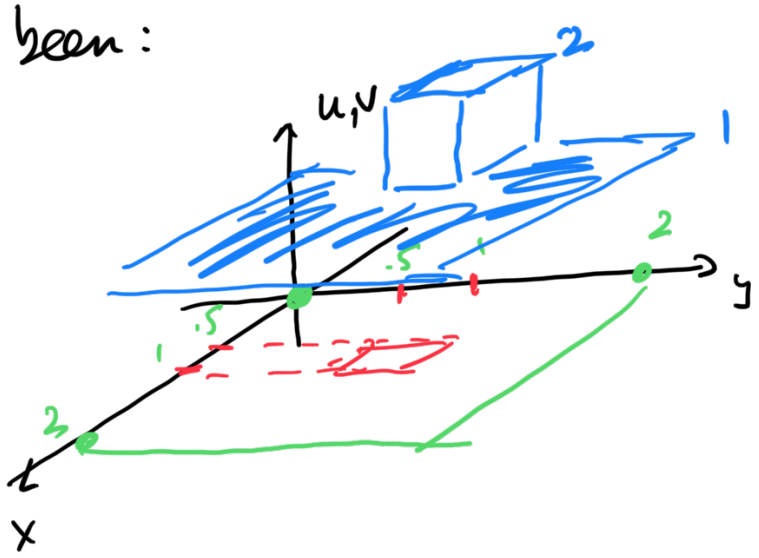
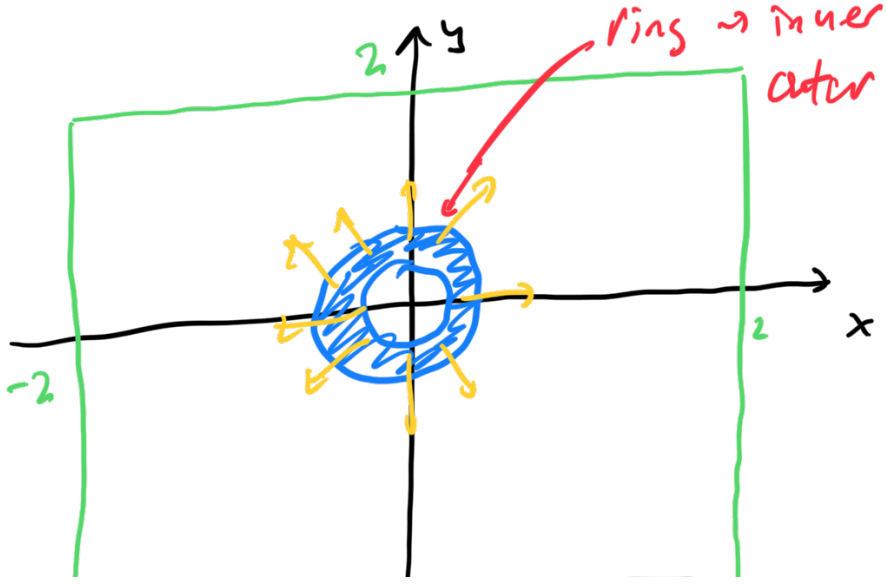
Dropping a Pebble in a Pond

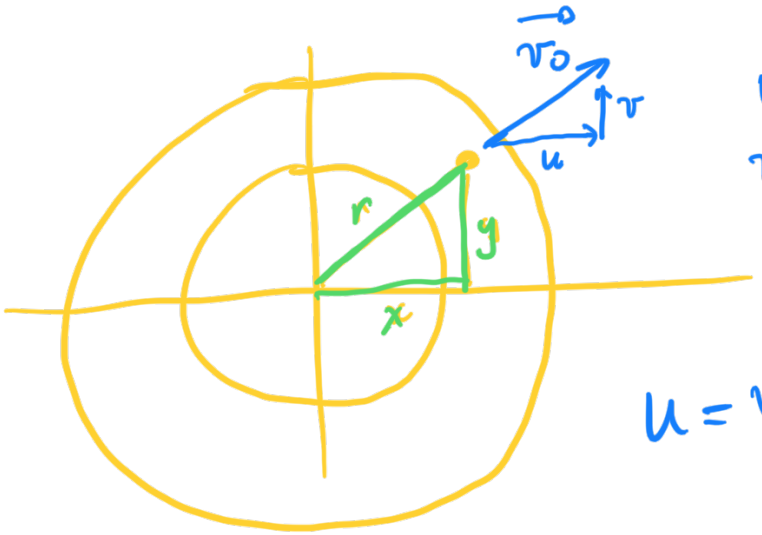
Up to this point, the initial condition that we have been studying have been:



Let's change this to:



with: $u = v_0 \cos\theta$, $v = v_0 \sin\theta$? $v_0 = 2\,m/s$



$u \propto x$

$v \propto y$

$$u = v_0 \cos\theta = v_0 \cdot \frac{x}{r}$$

$$v = v_0 \sin\theta = v_0 \cdot \frac{y}{r}$$

Remember, we need to set B.C.'s so that $u = v = 0$ at the edges!!