

$$\text{info}(D) = I(8,4) = -\frac{8}{12} \log_2\left(\frac{8}{12}\right) - \frac{4}{12} \log_2\left(\frac{4}{12}\right) = -0.9182958$$

age	$p_i$	$n_i$	$I(p_i, n_i)$
$\leq 30$	2	2	
31..40	3	0	0
$> 40$	3	2	