Rod Cutting Algorithm

Bottom-Up-Cut-Rod(p, n)

let $r[0 \mathrel{..} n]$ be a new array
$r[0] = 0$
for $j = 1$ **to** n
    $q = -\infty$
    for $i = 1$ **to** j
        $q = \max(q, p[i] + r[j - i])$
    $r[j] = q$
return $r[n]$