

function *On-the-fly Reach*(model $M, p \in AP$)

$Q := \emptyset;$

$Q' := S_0;$

while $Q \neq Q'$ **do**

if $\exists s \in Q'. s \not\models p$ **then**

return ("Model dose not satisfy **AG** p ");

end if

$Q := Q';$

$Q' := Q' \cup \text{post-image}(Q');$

end while

return ("Model satisfies **AG** p ", Q);

end function