1 **(a)** Complete the truth table for the logic expression:

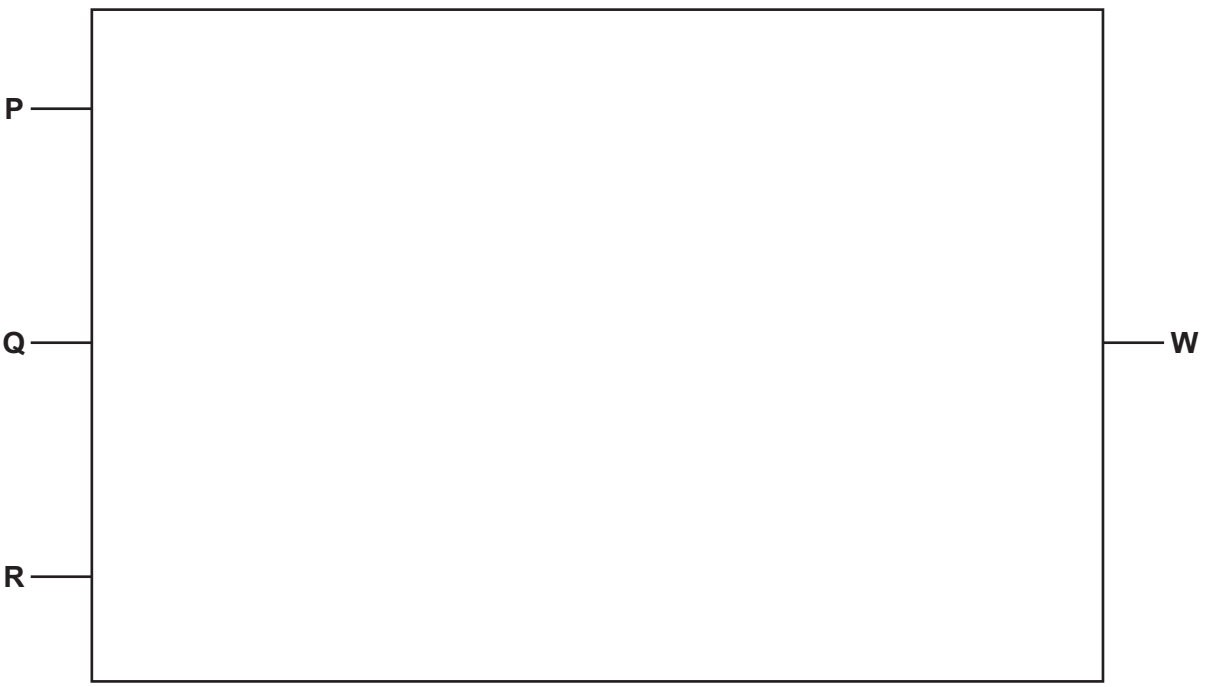
X = (**A** XOR **B**) NAND (**A** AND (**B** XOR **C**))

A	B	C	Working space	X
0	0	0		
0	0	1		
0	1	0		
0	1	1		
1	0	0		
1	0	1		
1	1	0		
1	1	1		

[2]

(b) Draw the logic circuit for the logic expression:

W = **P** NAND ((**Q** OR NOT **R**) XOR (**P** XOR **Q**))



[2]