

Co get KPC  
 Co get masochists  
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**Q4: KRC**

**Block Diagram:** A 2-to-1 multiplexer with inputs  $x$  and  $y$ , and select input  $z$ . The output is  $w$ .

**Truth Table:**

$x$	$y$	$z$	$w$
0	0	0	0
0	0	1	0
0	1	0	0
0	1	1	1
1	0	0	1
1	0	1	0
1	1	0	1
1	1	1	1

**Karnaugh Map:**

$xy \backslash z$	0	1
0	0	0
1	1	1

**Handwritten Notes:**

- Group 1:  $w = x$  (when  $z = 0$ )
- Group 2:  $w = y$  (when  $z = 1$ )
- Final expression:  $w = x \oplus yz$

$\begin{matrix} 1s \\ a_n \\ b_n \end{matrix} \quad \begin{matrix} a_n \\ b_n \end{matrix} \quad \begin{matrix} a_n \\ b_n \end{matrix} \quad \begin{matrix} a_n \\ b_n \end{matrix}$



...	abc	def	ghi	jkl	mno	pqr	stu	<b>vwx</b>	yz
=	1	2	3	4	5	6	7	<b>8</b>	9



$\text{Base}^c \rightarrow \text{for} \rightarrow \text{for}$