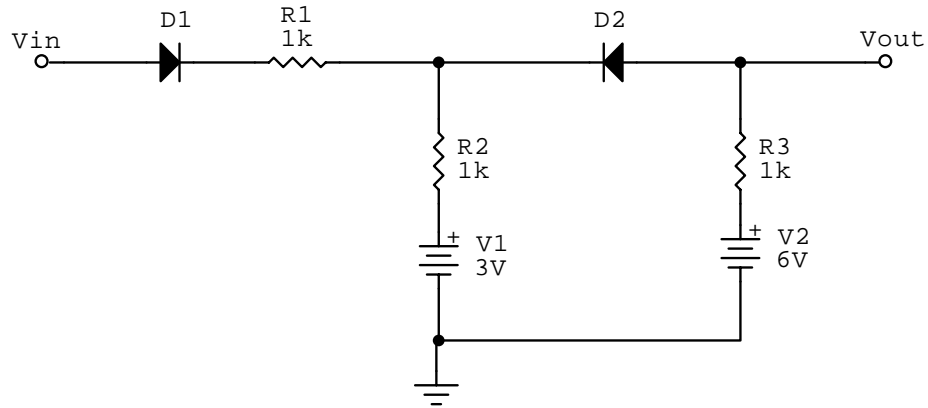


תרגיל 4 – מעגלי קטימה

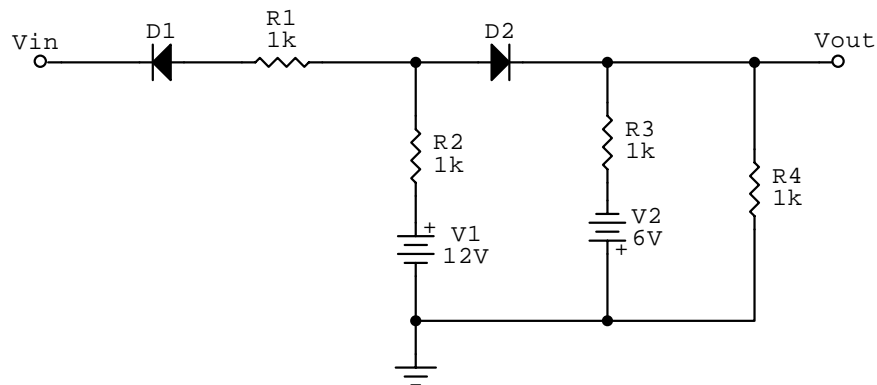
1. שרטט וחשב אופיין מעבר של המעגלים הנתונים.

נתון : דיודות אידיאליות

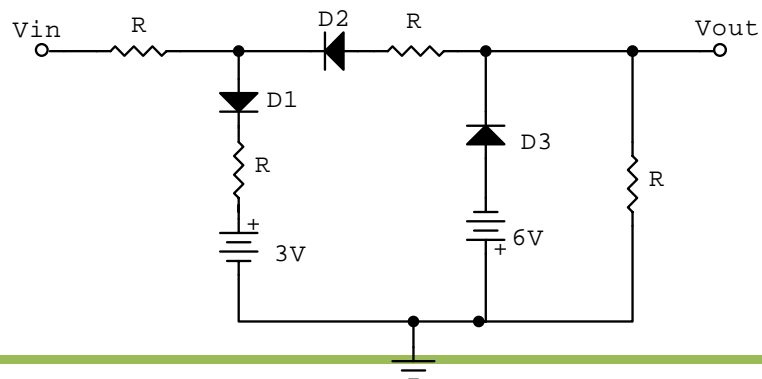
א.



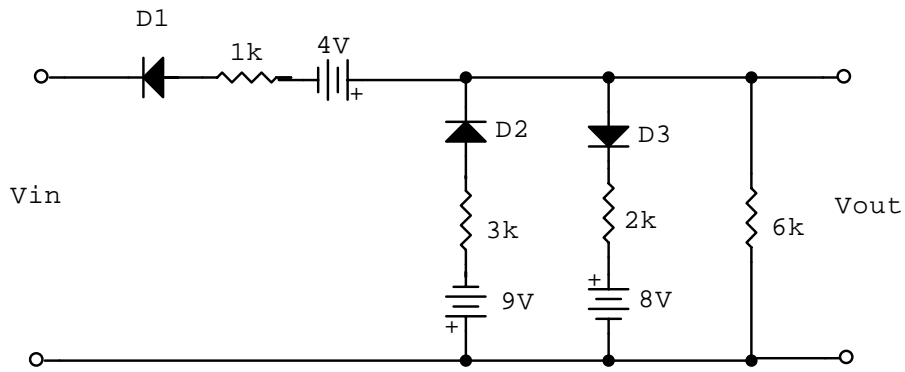
ב.



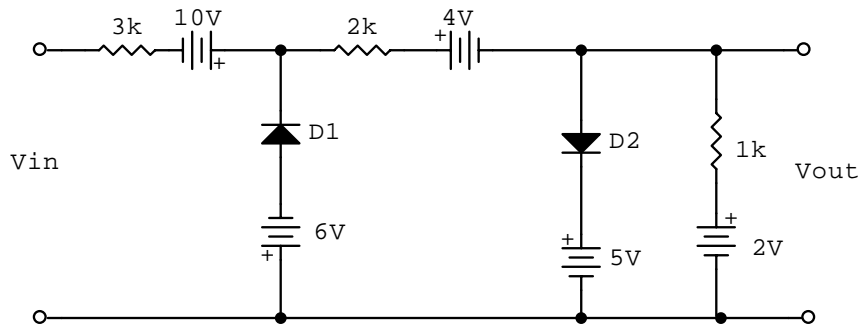
ג.



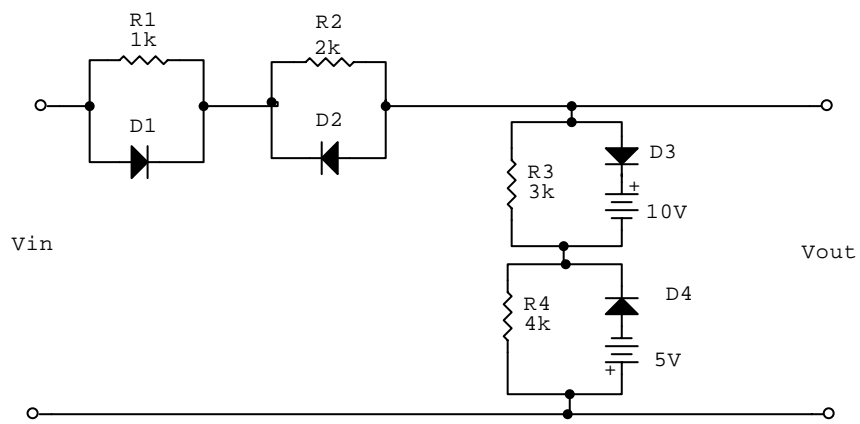
.ט



.ה



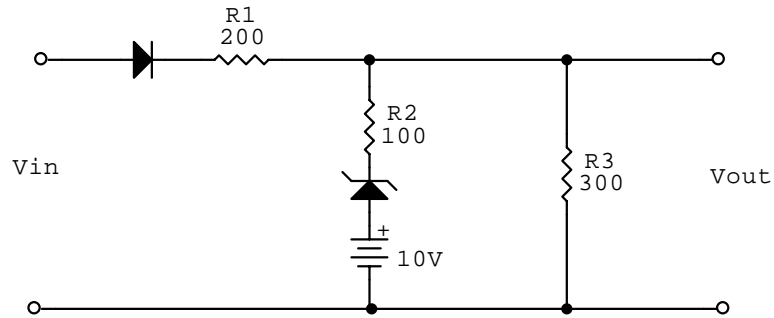
.ו



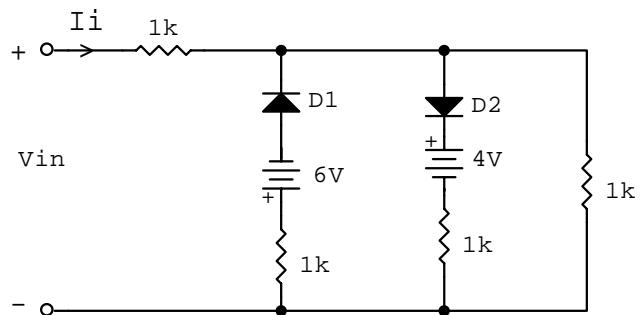
.2

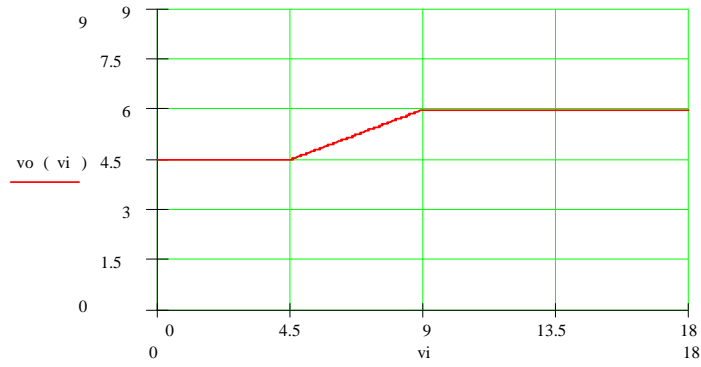
נתון לכל דיודה $v_b=0.5\text{V}$ $r_d=100$ דיודת זנר $v_z=4\text{V}$ $r_z=50$

שרטט וחשב אופיין תמסורת של המעגל הבא :

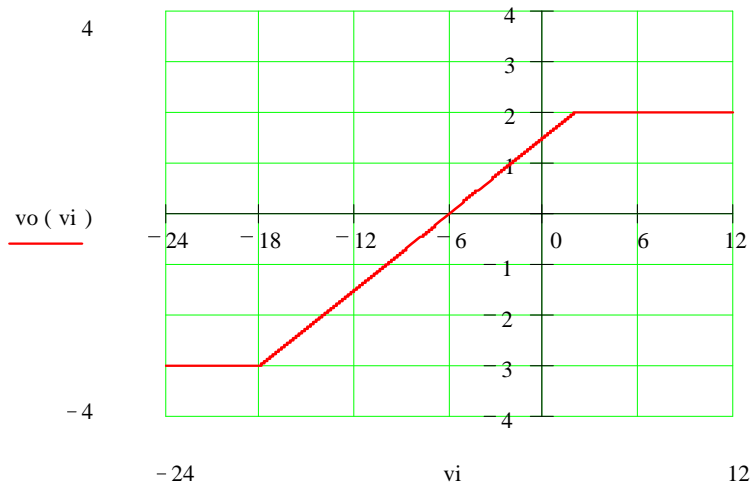


.3

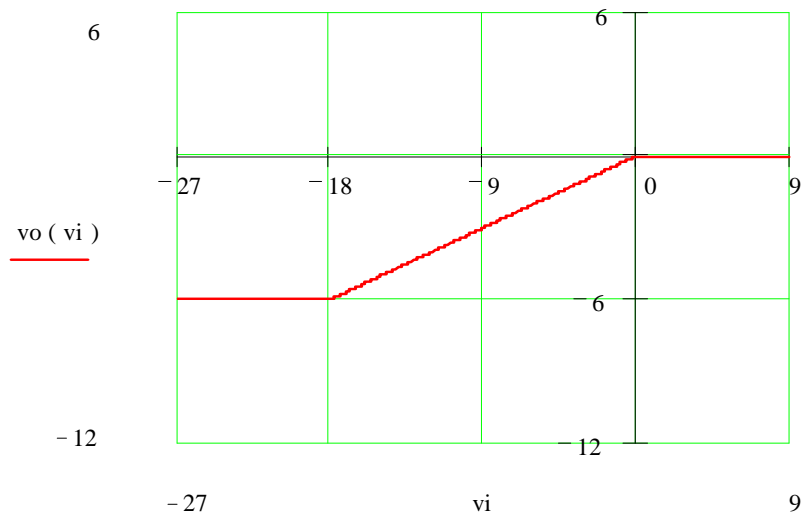
שרטט אופיין תמסורת בין v_i לבין i_i .

תשובות1
א.

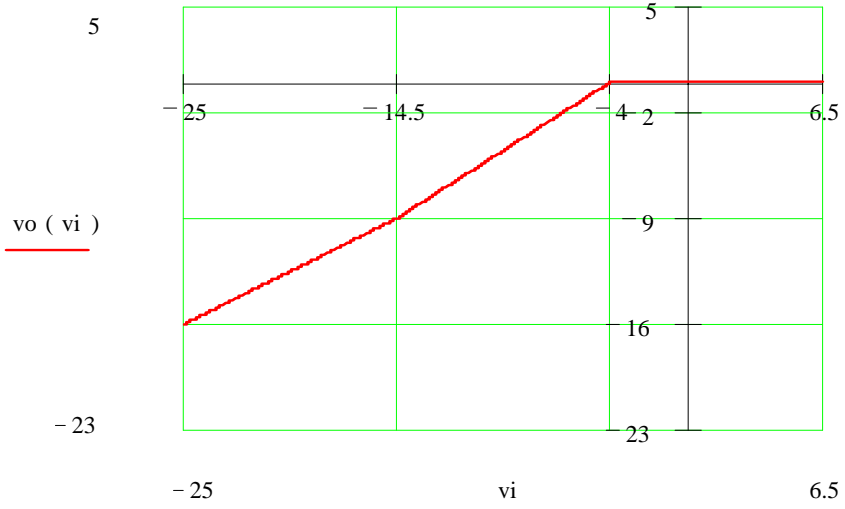
ב.



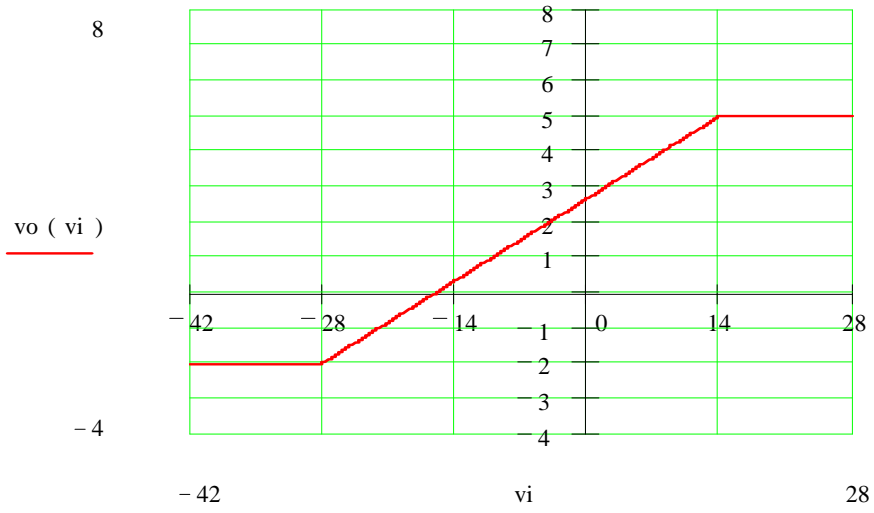
ג.



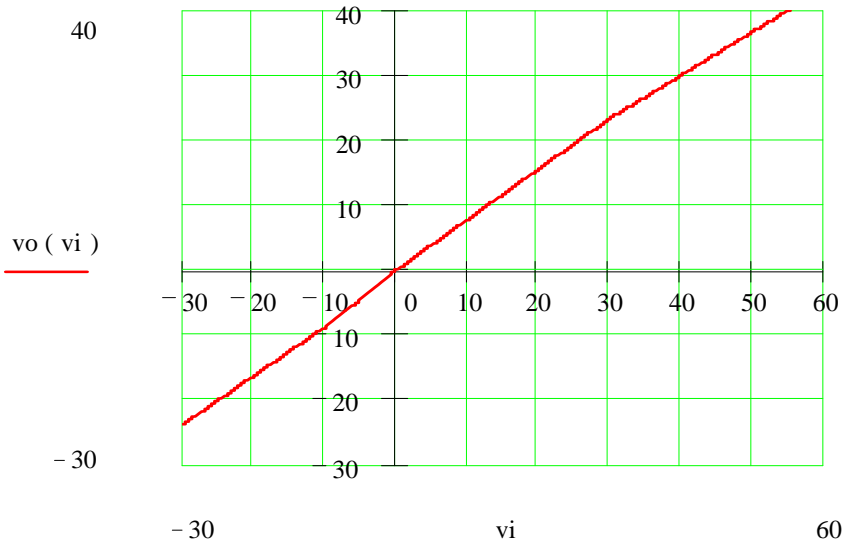
.ד



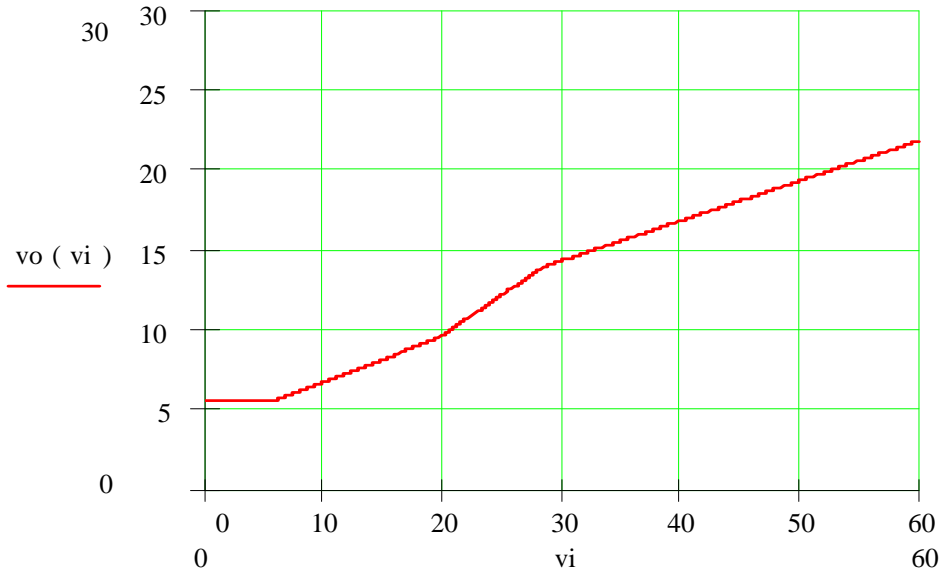
.ה



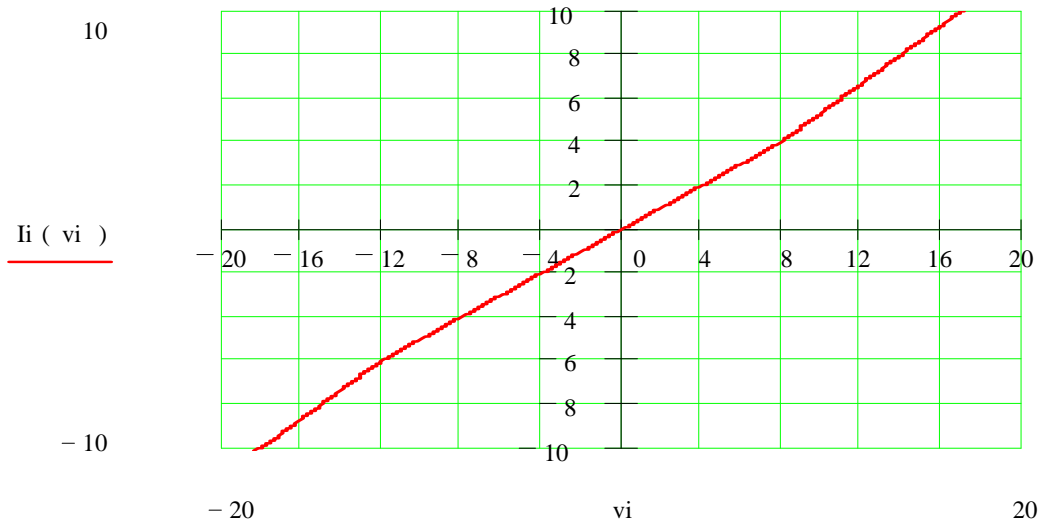
.ו



.2



.3



פונקציות

		.1
		.א
$vi < 4.5$	$vo = 4.5$	
$4.5 < vi < 9$	$vo = (vi + 9)/3$	
$vi > 9$	$vo = 6$.ב
$vi < -18$	$vo = -3$	
$-18 < vi < 2$	$vo = (vi + 6)/4$	
$vi > 2$	$vo = 2$.ג
$vi < -18$	$vo = -6$	
$-18 < vi < 0$	$vo = vi/3$	
$vi > 0$	$vo = 0$.ד
$vi < -14.5$	$vo = (2vi + 2)/3$	
$-14.5 < vi < -4$	$vo = (6vi + 24)/7$	
$vi > -4$	$vo = 0$.ה
$vi < -28$	$vo = -2$	
$-28 < vi < 14$	$vo = vi/6 + 8/3$	
$vi > 14$	$vo = 5$.ו
$vi < -10$	$vo = (3vi - 5)/4$	
$-10 < vi < 0$	$vo = 7vi/8$	
$0 < vi < 30$	$vo = 7vi/9$	
$vi > 30$	$vo = (2vi + 10)/3$.ז
$vi < 6.2$	$vo = 5.7$	
$6.2 < vi < 19.5$	$vo = (2vi + 27.5)/7$	
$19.5 < vi < 28.5$	$vo = vi/2 - 1/4$	
$vi > 28.5$	$vo = (vi + 27.5)/4$.ח
$vi < -12$	$Ii = (vi + 3)/1.5k$.3
$-12 < vi < 8$	$Ii = vi/2k$	
$vi > 8$	$Ii = (vi - 2)/1.5k$	