

$H^*(F)$   
 $H^*(K(z, z))$

10	$z_{y^5}$	0	0	$z_{y^2}$							
9	0	0	0								
8	$z_{y^4}$	0	0	$z_{y^2}$	0	0					
7	0	0	0		0	0					
6	$z_{y^3}$	0	0	$z_{y^2}$	0	0					
5	0	0	0	0	0	0	0	0	0	0	0
4	$z_{y^2}$	0	0	$z_{y^2}$	0	0	$z_{y^2}$				
3	0	0	0	0	0	0	0	0	0	0	0
2	$z_y$	0	0	$z_{y^2}$	0	0	$z_{y^2}$				
1	0	0	0	0	0	0	0	0	0	0	0
0	$z_1$	0	0	$z_z$	0	0	$z_{y^2}$	$z_1$			
	0	1	2	3	4	5	6	7	8	9	10

$E_2$

$\Rightarrow H^*(*)$

$$d_3(y) = z$$

$$d_3(yz) = d_3(y)z + y d_3(z)$$

$$= z^2 \quad ??$$

$$d_3(y^2) = d_3(y)y + y d_3(y)$$

$$= zy + yz$$

$$= 2yz$$

$$d_3(y^n) = ny^{n-1} d_3(y)$$

$$= ny^{n-1} z$$

$$d_3(y^2 z) = d_3(y^2)z + y^2 d_3(z)$$

$$= 2yz^2 \pmod{z^2}$$

$H^*(B) = H^*(K(z, z))$

careful

$$d_5(y^2 z) = a$$

$$d_5(y^2 z) \neq d_5(y^2)z + y^2 d_5(z)$$

$\uparrow$   $y^2$  has died on before  $E_5$  page  
not a product on  $E_5$

Exercise Redo this computation and take it a little further