$H^*(K(\mathbb{Z}/3,1),\mathbb{Z}/3)$

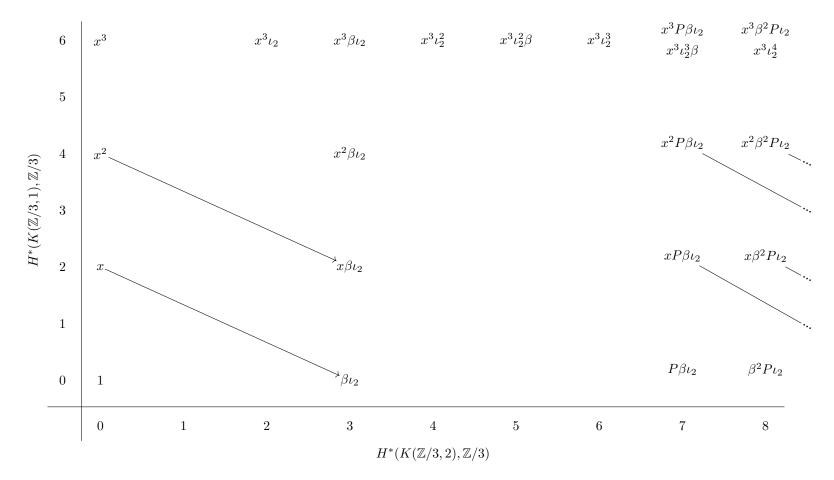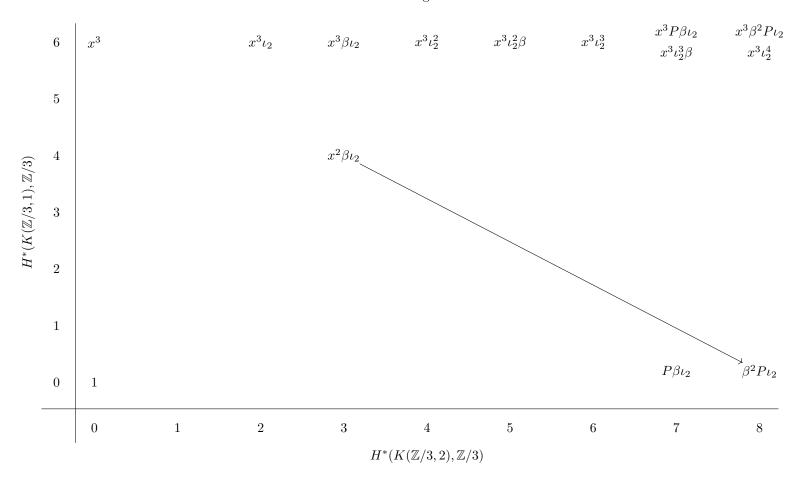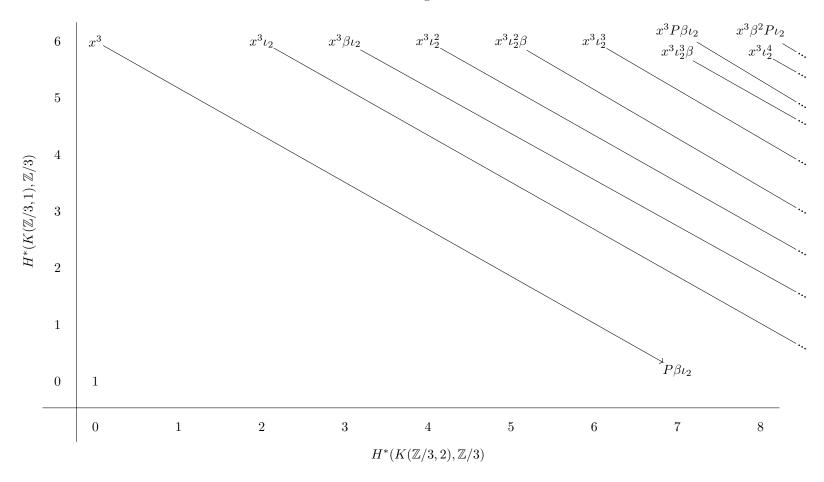|	0	1	2	3	4	5	6	7	8
6	x^3		$x^3\iota_2$	$x^3\beta\iota_2$	$x^3\iota_2^2$	$x^3\iota_2^2\beta$	$x^3\iota_2^3$	$x^3P\beta\iota_2$ / $x^3\iota_2^3\beta$	$x^3\beta^2P\iota_2$ / $x^3\iota_2^4$
5	αx^2		$\alpha x^2\iota_2$	$\alpha x^2\beta\iota_2$	$\alpha x^2\iota_2^2$	$\alpha x^2\iota_2^2\beta$	$\alpha x^2\iota_2^3$	$\alpha x^2P\beta\iota_2$ / $\alpha x^2\iota_2^3\beta$	$\alpha x^2\beta^2P\iota_2$ $\cdots$ / $\alpha x^2\iota_2^4$ $\cdots$
4	x^2		$x^2\iota_2$	$x^2\beta\iota_2$	$x^2\iota_2^2$	$x^2\iota_2^2\beta$	$x^2\iota_2^3$	$x^2P\beta\iota_2$ / $x^2\iota_2^3\beta$	$x^2\beta^2P\iota_2$ / $x^2\iota_2^4$
3	αx		$\alpha x\iota_2$	$\alpha x\beta\iota_2$	$\alpha x\iota_2^2$	$\alpha x\iota_2^2\beta$	$\alpha x\iota_2^3$	$\alpha xP\beta\iota_2$ / $\alpha x\iota_2^3\beta$	$\alpha x\beta^2P\iota_2$ $\cdots$ / $\alpha x\iota_2^4$ $\cdots$
2	x		$x\iota_2$	$x\beta\iota_2$	$x\iota_2^2$	$x\iota_2^2\beta$	$x\iota_2^3$	$xP\beta\iota_2$ / $x\iota_2^3\beta$	$x\beta^2P\iota_2$ / $x\iota_2^4$
1	α		$\alpha\iota_2$	$\alpha\beta\iota_2$	$\alpha\iota_2^2$	$\alpha\iota_2^2\beta$	$\alpha\iota_2^3$	$\alpha P\beta\iota_2$ / $\alpha\iota_2^3\beta$	$\alpha\beta^2P\iota_2$ $\cdots$ / $\alpha\iota_2^4$ $\cdots$
0	1		ι_2	$\beta\iota_2$	ι_2^2	$\iota_2^2\beta$	ι_2^3	$P\beta\iota_2$ / $\iota_2^3\beta$	$\beta^2P\iota_2$ / ι_2^4

$H^*(K(\mathbb{Z}/3,2),\mathbb{Z}/3)$

The vertical axis is labeled $H^*(K(\mathbb{Z}/3,1),\mathbb{Z}/3)$ and the horizontal axis is labeled $H^*(K(\mathbb{Z}/3,2),\mathbb{Z}/3)$.

Row 6: x^3, $x^3\iota_2$, $x^3\beta\iota_2$, $x^3\iota_2^2$, $x^3\iota_2^2\beta$, $x^3\iota_2^3$, $x^3P\beta\iota_2$ / $x^3\iota_2^3\beta$, $x^3\beta^2P\iota_2$ / $x^3\iota_2^4$

Row 4: x^2, $x^2\beta\iota_2$, $x^2P\beta\iota_2$, $x^2\beta^2P\iota_2$ $\cdots$

Row 2: x, $x\beta\iota_2$, $xP\beta\iota_2$, $x\beta^2P\iota_2$ $\cdots$

Row 0: 1, $\beta\iota_2$, $P\beta\iota_2$, $\beta^2P\iota_2$

$H^*(K(\mathbb{Z}/3,1),\mathbb{Z}/3)$

6	x^3			$x^3\iota_2$	$x^3\beta\iota_2$	$x^3\iota_2^2$	$x^3\iota_2^2\beta$	$x^3\iota_2^3$	$x^3P\beta\iota_2$ / $x^3\iota_2^3\beta$	$x^3\beta^2P\iota_2$ / $x^3\iota_2^4$

6   x^3 $x^3\iota_2$ $x^3\beta\iota_2$ $x^3\iota_2^2$ $x^3\iota_2^2\beta$ $x^3\iota_2^3$ $x^3P\beta\iota_2$ $x^3\beta^2P\iota_2$

                                $x^3\iota_2^3\beta$ $x^3\iota_2^4$

5

4           $x^2\beta\iota_2$

3

2

1

0   1 $P\beta\iota_2$ $\beta^2P\iota_2$

     0   1   2   3   4   5   6   7   8

$H^*(K(\mathbb{Z}/3,2),\mathbb{Z}/3)$

(Arrow from $x^2\beta\iota_2$ at position (3,4) to $\beta^2P\iota_2$ at position (8,0))

$H^*(K(\mathbb{Z}/3,1),\mathbb{Z}/3)$

6	x^3		$x^3\iota_2$	$x^3\beta\iota_2$	$x^3\iota_2^2$	$x^3\iota_2^2\beta$	$x^3\iota_2^3$	$x^3P\beta\iota_2$ $x^3\iota_2^3\beta$	$x^3\beta^2P\iota_2$ $x^3\iota_2^4$
5									
4									
3									
2									
1									
0	1							$P\beta\iota_2$	
	0	1	2	3	4	5	6	7	8

$H^*(K(\mathbb{Z}/3,2),\mathbb{Z}/3)$

$H^*(K(\mathbb{Z}/3,2),\mathbb{Z}/3)$

1 ι_2 $\xrightarrow{\beta^1}$ $\beta\iota_2$ ι_2^2 $\xrightarrow{\beta^1}$ $\iota_2^2\beta$ ι_2^3 $\xrightarrow{\beta^2}$ $\iota_2^3\beta$ $P\beta\iota_2$ $\xrightarrow{\beta^1}$ $\beta^2 P\iota_2$ ι_2^4 $\xrightarrow{\beta^1}$

$H^*(K(\mathbb{Z}/3,2),\mathbb{Z})$

$\mathbb{Z}\{1\}$ $\mathbb{Z}/3\{\beta\iota_3\}$ $\mathbb{Z}/3\{\beta\iota_2^2\}$ $\mathbb{Z}/9\{\beta\iota_2^3\}$ $\mathbb{Z}/3\{\beta P^1\iota_2\}$

	0	1	2	3	4	5	6	7	8

Chart with vertical axis labeled $H^*(K(\mathbb{Z}/3,1),\mathbb{Z}/3)$ and horizontal axis labeled $H^*(K(\mathbb{Z}/3,2),\mathbb{Z}/3)$.

Row $y=8$, $x=0$: ι_2^4

Row $y=8$ (just below), $x=0$: $\beta^2 P\iota_2$

Row $y=7$, $x=0$: $\iota_2^3\beta$

Row $y=7$ (below), $x=0$: $P\beta\iota_2$

Row $y=6$, $x=0$: ι_2^3; $x=3$: $\iota_2^3\iota_3$; $x=4$: $\iota_2^3\beta\iota_3$

Row $y=5$, $x=0$: $\iota_2\beta\iota_2$; $x=3$: $\iota_2\beta\iota_2\iota_3$; $x=4$: $\iota_2\beta\iota_2\beta\iota_3$

Row $y=4$, $x=0$: ι_2^2; $x=3$: $\iota_2^2\iota_3$; $x=4$: $\iota_2^2\beta\iota_3$

Row $y=3$, $x=0$: $\beta\iota_2$; $x=3$: $\beta\iota_2\iota_3$; $x=4$: $\beta\iota_2\beta\iota_3$

Row $y=2$, $x=0$: ι_2; $x=3$: $\iota_2\iota_3$; $x=4$: $\iota_2\beta\iota_3$

Row $y=0$, $x=0$: 1; $x=3$: ι_3; $x=4$: $\beta\iota_3$; $x=7$: $\iota_3^2\beta$ and $P\iota_3$; $x=8$: $P\beta\iota_3$, $(\beta\iota_3)^2$, $\beta P\iota_3$; $x=9$: $\beta^2 P\iota_3$

Differentials (arrows):
- $\iota_2^4 \to \iota_2^3\iota_3$
- $\iota_2^3\beta \to \iota_2\beta\iota_2\iota_3$
- $\iota_2\beta\iota_2 \to \beta\iota_2\iota_3$
- $\iota_2^2 \to \iota_2\iota_3$
- $\iota_2 \to \iota_3$
- $\iota_2\beta\iota_3 \to \iota_3^2\beta$

$H^*(K(\mathbb{Z}/3,1),\mathbb{Z}/3)$

8    $\beta^2 P\iota_2$

7    $P\beta\iota_2$

6   ι_2^3 $\iota_2^3\beta\iota_3$

5                $\iota_2\beta\iota_2\beta\iota_3$

4       $\iota_2^2\iota_3$ $\iota_2^2\beta\iota_3$

3    $\beta\iota_2$ $\beta\iota_2\beta\iota_3$

2

1

0   1 $\beta\iota_3$ $P\iota_3$ $P\beta\iota_3$ $(\beta\iota_3)^2$ $\beta P\iota_3$ $\beta^2 P\iota_3$

     0   1   2   3   4   5   6   7   8   9

$H^*(K(\mathbb{Z}/3,2),\mathbb{Z}/3)$

$H^*(K(\mathbb{Z}/3,3),\mathbb{Z}/3)$ rows and $H^*(K(\mathbb{Z}/3,3),\mathbb{Z})$ rows across degrees 0–9.

$H^*(K(\mathbb{Z}/3,3),\mathbb{Z}/3)$:

1 (degree 0)

$\iota_3 \xrightarrow{\beta^1} \beta\iota_3$

At degree 7–9:
$$\iota_3^2\beta$$
$$P\iota_3$$
$$P\iota_3 \xrightarrow{\beta^1} \begin{matrix} P\beta\iota_3 \\ (\beta\iota_3)^2 \\ \beta P\iota_3 \end{matrix} \xrightarrow{\beta^1} \beta^2 P\iota_3$$
with $\iota_3^2\beta \xrightarrow{\beta^1} P\beta\iota_3$ and $P\iota_3 \xrightarrow{\beta^1} \beta P\iota_3$.

$H^*(K(\mathbb{Z}/3,3),\mathbb{Z})$:

$\mathbb{Z}\{1\}$ (degree 0)

$\mathbb{Z}/3\{\beta\iota_3\}$ (degree 4)

$\mathbb{Z}/3\{\beta(\iota_3\beta\iota_3)\}$
$\mathbb{Z}/3\{\beta P^1\iota_3\}$
$\mathbb{Z}/3\{\beta P^1\beta\iota_3\}$

Degree axis: 0 1 2 3 4 5 6 7 8 9

Chart with vertical axis $H^*(K(\mathbb{Z}/3,4),\mathbb{Z}/3)$ and horizontal axis $H^*(K(\mathbb{Z}/3,3),\mathbb{Z}/3)$.

At column 0:
- row 9: $\beta P^1 \beta\iota_3$
- row 8: $P^1\beta\iota_3$, $(\beta\iota_3)^2$, $\beta P^1\iota_3$
- row 7: $\iota_3\beta\iota_3$, $P^1\iota_3$
- row 4: $\beta\iota_3$
- row 3: ι_3
- row 0: 1

At column 4:
- row 4: $\beta\iota_3\iota_4$
- row 3: $\iota_3\iota_4$
- row 0: ι_4

At column 5:
- row 4: $\beta\iota_3\beta\iota_4$
- row 3: $\iota_3\beta\iota_4$
- row 0: $\beta\iota_4$

At column 8:
- row 0: $P^1\iota_4$, ι_4^2

At column 9:
- row 0: $\beta P^1\iota_4$, $P^1\beta\iota_4$, $\iota_4\beta\iota_4$

At column 10:
- row 0: $\beta P^1\beta\iota_4$

Arrows (differentials):
- from $(0,7)$ to $(4,4)$ ($\beta\iota_3\iota_4$)
- from $(0,3)$ to $(4,0)$ (ι_4)
- from $(4,3)$ to $(8,0)$ (ι_4^2)
- from $(5,3)$ to $(9,0)$

This page is a cohomology Serre spectral sequence chart. The vertical axis is labeled $H^*(K(\mathbb{Z}/3,4),\mathbb{Z}/3)$ and the horizontal axis is labeled $H^*(K(\mathbb{Z}/3,3),\mathbb{Z}/3)$.

Entries along the vertical axis (at horizontal position 0):
- 9: $\beta P^1 \beta \iota_3$
- 8: $P^1 \beta \iota_3$, $(\beta \iota_3)^2$, $\beta P^1 \iota_3$
- 7: $P^1 \iota_3$
- 4: $\beta \iota_3$
- 0: 1

Other entries:
- $\beta \iota_3 \beta \iota_4$ near horizontal 5, vertical 4
- $\beta \iota_4$ near horizontal 5, vertical 0
- $P^1 \iota_4$ near horizontal 8, vertical 0
- $\beta P^1 \iota_4$, $P^1 \beta \iota_4$ near horizontal 9, vertical 0
- $\beta P^1 \beta \iota_4$ near horizontal 10, vertical 0

Differential arrows:
- from $\beta P^1 \iota_3$ (at vertical 8) to $\beta \iota_3 \beta \iota_4$
- from $\beta \iota_3$ (at vertical 4) to $\beta \iota_4$

$H^*(K(\mathbb{Z}/3,4),\mathbb{Z}/3)$

1

$\iota_4 \xrightarrow{\beta^1} \beta\iota_4$

$P^1\iota_4$
ι_4^2
$\xrightarrow{\beta^1} \beta P^1\iota_4$
$P^1\beta\iota_4 \xrightarrow{\beta^1} \beta P^1\beta\iota_4$
$\iota_4\beta\iota_4$
$\xrightarrow{\beta^1}$

$H^*(K(\mathbb{Z}/3,4),\mathbb{Z})$

$\mathbb{Z}\{1\}$

$\mathbb{Z}/3\{\beta\iota_4\}$

$\mathbb{Z}/3\{\beta(\iota_4^2)\}$
$\mathbb{Z}/3\{\beta P^1\iota_4\}$
$\mathbb{Z}/3\{\beta P^1\beta\iota_4\}$

0	1	2	3	4	5	6	7	8	9	10