

## Collections of Hilbert Series Data

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## 1 N=2

### 1.1 E=3

Table 1: Quivers with 2 Vertices and 3 Edges

Dimension	Degree	Hilbert Series	Count
0	1	$(T^2 - 2T + 1)/(-T + 1)^2$	5

### 1.2 E=4

Table 2: Quivers with 2 Vertices and 4 Edges

Dimension	Degree	Hilbert Series	Count
0	1	$(T^4 - 4T^3 + 6T^2 - 4T + 1)/(-T + 1)^4$	847
1	1	$(-T^3 + 3T^2 - 3T + 1)/(-T + 1)^4$	153

### 1.3 E=5

Table 3: Quivers with 2 Vertices and 5 Edges

Dimension	Degree	Hilbert Series	Count
0	1	$(T^8 - 8T^7 + 28T^6 - 56T^5 + 70T^4 - 56T^3 + 28T^2 - 8T + 1)/(-T + 1)^8$	983
1	1	$(-T^7 + 7T^6 - 21T^5 + 35T^4 - 35T^3 + 21T^2 - 7T + 1)/(-T + 1)^8$	14
2	2	$(T^7 - 5T^6 + 9T^5 - 5T^4 - 5T^3 + 9T^2 - 5T + 1)/(-T + 1)^8$	473
2	3	$(2T^7 - 11T^6 + 24T^5 - 25T^4 + 10T^3 + 3T^2 - 4T + 1)/(-T + 1)^8$	30

## 2 N=3

### 2.1 E=3

Table 4: Quivers with 3 Vertices and 3 Edges

Dimension	Degree	Hilbert Series	Count
0	1	1	5

### 2.2 E=4

Table 5: Quivers with 3 Vertices and 4 Edges

Dimension	Degree	Hilbert Series	Count
0	1	$(T^2 - 2T + 1)/(-T + 1)^2$	60

### 2.3 E=5

Table 6: Quivers with 3 Vertices and 5 Edges

Dimension	Degree	Hilbert Series	Count
0	1	$(T^4 - 4T^3 + 6T^2 - 4T + 1)/(-T + 1)^4$	963
1	1	$(-T^3 + 3T^2 - 3T + 1)/(-T + 1)^4$	87
1	1	$(T^2 - 2T + 1)/(-T + 1)^3$	5
2	1	$(T^2 - 2T + 1)/(-T + 1)^4$	70

### 2.4 E=6

Table 7: Quivers with 3 Vertices and 6 Edges

Dimension	Degree	Hilbert Series	Count
0	1	$(T^8 - 8T^7 + 28T^6 - 56T^5 + 70T^4 - 56T^3 + 28T^2 - 8T + 1)/(-T + 1)^8$	2832
0	1	$(T^4 - 4T^3 + 6T^2 - 4T + 1)/(-T + 1)^4$	50
0	1	$(T^6 - 6T^5 + 15T^4 - 20T^3 + 15T^2 - 6T + 1)/(-T + 1)^6$	395
1	1	$(-T^7 + 7T^6 - 21T^5 + 35T^4 - 35T^3 + 21T^2 - 7T + 1)/(-T + 1)^8$	1132
1	1	$(-T^5 + 5T^4 - 10T^3 + 10T^2 - 5T + 1)/(-T + 1)^6$	34
1	1	$(T^4 - 4T^3 + 6T^2 - 4T + 1)/(-T + 1)^5$	420
1	2	$(-T^8 + 6T^7 - 14T^6 + 14T^5 - 14T^3 + 14T^2 - 6T + 1)/(-T + 1)^8$	9
1	3	$(2T^5 - 7T^4 + 8T^3 - 2T^2 - 2T + 1)/(-T + 1)^5$	50
2	1	$(T^2 - 2T + 1)/(-T + 1)^4$	10
2	1	$(-T^3 + 3T^2 - 3T + 1)/(-T + 1)^5$	80
2	1	$(T^4 - 4T^3 + 6T^2 - 4T + 1)/(-T + 1)^6$	536
2	2	$(T^5 - 3T^4 + 2T^3 + 2T^2 - 3T + 1)/(-T + 1)^6$	35
2	2	$(T^7 - 5T^6 + 9T^5 - 5T^4 - 5T^3 + 9T^2 - 5T + 1)/(-T + 1)^8$	23
2	3	$(-2T^4 + 5T^3 - 3T^2 - T + 1)/(-T + 1)^5$	10
2	3	$(2T^7 - 11T^6 + 24T^5 - 25T^4 + 10T^3 + 3T^2 - 4T + 1)/(-T + 1)^8$	1
3	2	$(-T^6 + 4T^5 - 5T^4 + 5T^2 - 4T + 1)/(-T + 1)^8$	3

### 3 N=4

#### 3.1 E=4

Table 8: Quivers with 4 Vertices and 4 Edges

Dimension	Degree	Hilbert Series	Count
0	1	1	5

#### 3.2 E=5

Table 9: Quivers with 4 Vertices and 5 Edges

Dimension	Degree	Hilbert Series	Count
0	1	$(T^2 - 2T + 1)/(-T + 1)^2$	60
1	1	$1/(-T + 1)$	5

#### 3.3 E=6

Table 10: Quivers with 4 Vertices and 6 Edges

Dimension	Degree	Hilbert Series	Count
0	1	$(T^4 - 4T^3 + 6T^2 - 4T + 1)/(-T + 1)^4$	2330
0	1	$(-T^3 + 3T^2 - 3T + 1)/(-T + 1)^3$	50
1	1	$(T^2 - 2T + 1)/(-T + 1)^3$	125
1	1	$(-T^3 + 3T^2 - 3T + 1)/(-T + 1)^4$	535
2	1	$(-T + 1)(-2)$	5
2	1	$(T^2 - 2T + 1)/(-T + 1)^4$	188
2	2	$(T^3 - T^2 - T + 1)/(-T + 1)^4$	7

### 3.4 E=7

Table 11: Quivers with 4 Vertices and 7 Edges

Dimension	Degree	Hilbert Series	Count
0	1	$(T^4 - 4T^3 + 6T^2 - 4T + 1)/(-T + 1)^4$	914
0	1	$(T^8 - 8T^7 + 28T^6 - 56T^5 + 70T^4 - 56T^3 + 28T^2 - 8T + 1)/(-T + 1)^8$	4614
0	1	$(T^6 - 6T^5 + 15T^4 - 20T^3 + 15T^2 - 6T + 1)/(-T + 1)^6$	1779
0	1	$(-T^5 + 5T^4 - 10T^3 + 10T^2 - 5T + 1)/(-T + 1)^5$	386
1	1	$(T^4 - 4T^3 + 6T^2 - 4T + 1)/(-T + 1)^5$	1552
1	1	$(-T^5 + 5T^4 - 10T^3 + 10T^2 - 5T + 1)/(-T + 1)^6$	574
1	1	$(-T^7 + 7T^6 - 21T^5 + 35T^4 - 35T^3 + 21T^2 - 7T + 1)/(-T + 1)^8$	1313
1	2	$(T^5 - 3T^4 + 2T^3 + 2T^2 - 3T + 1)/(-T + 1)^5$	379
1	2	$(-T^8 + 6T^7 - 14T^6 + 14T^5 - 14T^3 + 14T^2 - 6T + 1)/(-T + 1)^8$	9
1	3	$(2T^5 - 7T^4 + 8T^3 - 2T^2 - 2T + 1)/(-T + 1)^5$	33
2	1	$(-T^3 + 3T^2 - 3T + 1)/(-T + 1)^5$	112
2	1	$(T^6 - 6T^5 + 15T^4 - 20T^3 + 15T^2 - 6T + 1)/(-T + 1)^8$	39
2	1	$(T^2 - 2T + 1)/(-T + 1)^4$	96
2	1	$(T^4 - 4T^3 + 6T^2 - 4T + 1)/(-T + 1)^6$	1440
2	2	$(T^7 - 5T^6 + 9T^5 - 5T^4 - 5T^3 + 9T^2 - 5T + 1)/(-T + 1)^8$	13
2	2	$(-T^4 + 2T^3 - 2T + 1)/(-T + 1)^5$	29
2	2	$(T^5 - 3T^4 + 2T^3 + 2T^2 - 3T + 1)/(-T + 1)^6$	187
2	3	$(-2T^4 + 5T^3 - 3T^2 - T + 1)/(-T + 1)^5$	2
2	3	$(2T^7 - 11T^6 + 24T^5 - 25T^4 + 10T^3 + 3T^2 - 4T + 1)/(-T + 1)^8$	1
3	1	$(-T^3 + 3T^2 - 3T + 1)/(-T + 1)^6$	4
3	1	$(-T^4 + 3T^3 - 2T^2 - T + 1)/(-T + 1)^5$	3
3	1	$(T^2 - 2T + 1)/(-T + 1)^5$	244
3	2	$(-T^6 + 4T^5 - 5T^4 + 5T^2 - 4T + 1)/(-T + 1)^8$	11
3	2	$(T^3 - T^2 - T + 1)/(-T + 1)^5$	5
3	2	$(-T^4 + 2T^3 - 2T + 1)/(-T + 1)^6$	16

## 4 N=5

### 4.1 E=5

Table 12: Quivers with 5 Vertices and 5 Edges

Dimension	Degree	Hilbert Series	Count
0	1	1	5

### 4.2 E=6

Table 13: Quivers with 5 Vertices and 6 Edges

Dimension	Degree	Hilbert Series	Count
0	1	$(T^2 - 2T + 1)/(-T + 1)^2$	110
1	1	$1/(-T + 1)$	15

### 4.3 E=7

Table 14: Quivers with 5 Vertices and 7 Edges

Dimension	Degree	Hilbert Series	Count
0	1	$(T^4 - 4T^3 + 6T^2 - 4T + 1)/(-T + 1)^4$	3200
0	1	$(-T^3 + 3T^2 - 3T + 1)/(-T + 1)^3$	941
1	1	$(T^2 - 2T + 1)/(-T + 1)^3$	287
1	1	$(-T^3 + 3T^2 - 3T + 1)/(-T + 1)^4$	619
2	1	$(-T + 1)(-2)$	27
2	1	$(T^2 - 2T + 1)/(-T + 1)^4$	238
2	2	$(T^3 - T^2 - T + 1)/(-T + 1)^4$	3

#### 4.4 E=8

Table 15: Quivers with 5 Vertices and 8 Edges

Dimension	Degree	Hilbert Series	Count
0	1	$(T^8 - 8T^7 + 28T^6 - 56T^5 + 70T^4 - 56T^3 + 28T^2 - 8T + 1)/(-T + 1)^8$	8134
0	1	$(T^6 - 6T^5 + 15T^4 - 20T^3 + 15T^2 - 6T + 1)/(-T + 1)^6$	4950
0	1	$(T^4 - 4T^3 + 6T^2 - 4T + 1)/(-T + 1)^4$	2828
0	1	$(-T^5 + 5T^4 - 10T^3 + 10T^2 - 5T + 1)/(-T + 1)^5$	1704
1	1	$(-T^5 + 5T^4 - 10T^3 + 10T^2 - 5T + 1)/(-T + 1)^6$	2081
1	1	$(T^4 - 4T^3 + 6T^2 - 4T + 1)/(-T + 1)^5$	7422
1	1	$(-T^7 + 7T^6 - 21T^5 + 35T^4 - 35T^3 + 21T^2 - 7T + 1)/(-T + 1)^8$	1704
1	1	$(-T^3 + 3T^2 - 3T + 1)/(-T + 1)^4$	200
1	2	$(-T^6 + 4T^5 - 5T^4 + 5T^2 - 4T + 1)/(-T + 1)^6$	5
1	2	$(-T^8 + 6T^7 - 14T^6 + 14T^5 - 14T^3 + 14T^2 - 6T + 1)/(-T + 1)^8$	23
1	2	$(T^5 - 3T^4 + 2T^3 + 2T^2 - 3T + 1)/(-T + 1)^5$	564
1	3	$(2T^5 - 7T^4 + 8T^3 - 2T^2 - 2T + 1)/(-T + 1)^5$	43
2	1	$(T^6 - 6T^5 + 15T^4 - 20T^3 + 15T^2 - 6T + 1)/(-T + 1)^8$	113
2	1	$(T^4 - 4T^3 + 6T^2 - 4T + 1)/(-T + 1)^6$	1841
2	1	$(T^2 - 2T + 1)/(-T + 1)^4$	492
2	1	$(-T^8 + 7T^7 - 20T^6 + 29T^5 - 20T^4 + T^3 + 8T^2 - 5T + 1)/(-T + 1)^8$	1
2	1	$(-T^3 + 3T^2 - 3T + 1)/(-T + 1)^5$	3004
2	1	$(T^5 - 4T^4 + 5T^3 - T^2 - 2T + 1)/(-T + 1)^5$	39
2	2	$(-T^4 + 2T^3 - 2T + 1)/(-T + 1)^5$	57
2	2	$(T^7 - 5T^6 + 9T^5 - 5T^4 - 5T^3 + 9T^2 - 5T + 1)/(-T + 1)^8$	12
2	2	$(T^5 - 3T^4 + 2T^3 + 2T^2 - 3T + 1)/(-T + 1)^6$	104
2	3	$(-2T^4 + 5T^3 - 3T^2 - T + 1)/(-T + 1)^5$	5
2	3	$(2T^7 - 11T^6 + 24T^5 - 25T^4 + 10T^3 + 3T^2 - 4T + 1)/(-T + 1)^8$	1
3	1	$(-T^3 + 3T^2 - 3T + 1)/(-T + 1)^6$	16
3	1	$(T^2 - 2T + 1)/(-T + 1)^5$	860
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Dimension	Degree	Hilbert Series	Count
3	1	$(-T^4 + 3T^3 - 2T^2 - T + 1)/(-T + 1)^5$	18
3	1	$(-T + 1)(-3)$	20
3	2	$(-T^4 + 2T^3 - 2T + 1)/(-T + 1)^6$	3
3	2	$(T^3 - T^2 - T + 1)/(-T + 1)^5$	29
3	2	$(-T^6 + 4T^5 - 5T^4 + 5T^2 - 4T + 1)/(-T + 1)^8$	12

## 5 N=6

### 5.1 E=6

Table 16: Quivers with 6 Vertices and 6 Edges

Dimension	Degree	Hilbert Series	Count
0	1	1	5

### 5.2 E=7

Table 17: Quivers with 6 Vertices and 7 Edges

Dimension	Degree	Hilbert Series	Count
0	1	$(T^2 - 2T + 1)/(-T + 1)^2$	110
1	1	$1/(-T + 1)$	15

### 5.3 E=8

Table 18: Quivers with 6 Vertices and 8 Edges

Dimension	Degree	Hilbert Series	Count
0	1	$(-T^3 + 3T^2 - 3T + 1)/(-T + 1)^3$	2287
0	1	$(T^4 - 4T^3 + 6T^2 - 4T + 1)/(-T + 1)^4$	4864
1	1	$(T^2 - 2T + 1)/(-T + 1)^3$	695
1	1	$(-T^3 + 3T^2 - 3T + 1)/(-T + 1)^4$	1337
1	2	$(-T^4 + 2T^3 - 2T + 1)/(-T + 1)^4$	7
2	1	$(-T + 1)(-2)$	78
2	1	$(T^2 - 2T + 1)/(-T + 1)^4$	338
2	2	$(T^3 - T^2 - T + 1)/(-T + 1)^4$	14

## 5.4 E=9

Table 19: Quivers with 6 Vertices and 9 Edges

Dimension	Degree	Hilbert Series	Count
0	1	$(-T^5 + 5T^4 - 10T^3 + 10T^2 - 5T + 1)/(-T + 1)^5$	6808
0	1	$(T^6 - 6T^5 + 15T^4 - 20T^3 + 15T^2 - 6T + 1)/(-T + 1)^6$	11082
0	1	$(T^4 - 4T^3 + 6T^2 - 4T + 1)/(-T + 1)^4$	5909
0	1	$(T^8 - 8T^7 + 28T^6 - 56T^5 + 70T^4 - 56T^3 + 28T^2 - 8T + 1)/(-T + 1)^8$	13836
0	2	$(-T^6 + 4T^5 - 5T^4 + 5T^2 - 4T + 1)/(-T + 1)^5$	651
1	1	$(T^4 - 4T^3 + 6T^2 - 4T + 1)/(-T + 1)^5$	16089
1	1	$(-T^5 + 5T^4 - 10T^3 + 10T^2 - 5T + 1)/(-T + 1)^6$	4090
1	1	$(-T^7 + 7T^6 - 21T^5 + 35T^4 - 35T^3 + 21T^2 - 7T + 1)/(-T + 1)^8$	2335
1	1	$(-T^3 + 3T^2 - 3T + 1)/(-T + 1)^4$	4960
1	2	$(T^5 - 3T^4 + 2T^3 + 2T^2 - 3T + 1)/(-T + 1)^5$	713
1	2	$(-T^6 + 4T^5 - 5T^4 + 5T^2 - 4T + 1)/(-T + 1)^6$	10
1	2	$(-T^8 + 6T^7 - 14T^6 + 14T^5 - 14T^3 + 14T^2 - 6T + 1)/(-T + 1)^8$	54
1	3	$(2T^5 - 7T^4 + 8T^3 - 2T^2 - 2T + 1)/(-T + 1)^5$	44
2	1	$(T^2 - 2T + 1)/(-T + 1)^4$	1393
2	1	$(-T^3 + 3T^2 - 3T + 1)/(-T + 1)^5$	7241
2	1	$(T^4 - 4T^3 + 6T^2 - 4T + 1)/(-T + 1)^6$	2638
2	1	$(T^6 - 6T^5 + 15T^4 - 20T^3 + 15T^2 - 6T + 1)/(-T + 1)^8$	234
2	1	$(-T^8 + 7T^7 - 20T^6 + 29T^5 - 20T^4 + T^3 + 8T^2 - 5T + 1)/(-T + 1)^8$	1
2	1	$(T^5 - 4T^4 + 5T^3 - T^2 - 2T + 1)/(-T + 1)^5$	41
2	2	$(T^7 - 5T^6 + 9T^5 - 5T^4 - 5T^3 + 9T^2 - 5T + 1)/(-T + 1)^8$	19
2	2	$(T^5 - 3T^4 + 2T^3 + 2T^2 - 3T + 1)/(-T + 1)^6$	138
2	2	$(-T^4 + 2T^3 - 2T + 1)/(-T + 1)^5$	84
2	3	$(-2T^4 + 5T^3 - 3T^2 - T + 1)/(-T + 1)^5$	9
2	3	$(2T^7 - 11T^6 + 24T^5 - 25T^4 + 10T^3 + 3T^2 - 4T + 1)/(-T + 1)^8$	1
3	1	$(-T + 1)(-3)$	123
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Dimension	Degree	Hilbert Series	Count
3	1	$(-T^3 + 3T^2 - 3T + 1)/(-T + 1)^6$	29
3	1	$(T^5 - 4T^4 + 5T^3 - T^2 - 2T + 1)/(-T + 1)^6$	3
3	1	$(-T^4 + 3T^3 - 2T^2 - T + 1)/(-T + 1)^5$	19
3	1	$(T^2 - 2T + 1)/(-T + 1)^5$	1541
3	2	$(T^7 - 7T^6 + 19T^5 - 25T^4 + 15T^3 - T^2 - 3T + 1)/(-T + 1)^8$	3
3	2	$(-T^6 + 4T^5 - 5T^4 + 5T^2 - 4T + 1)/(-T + 1)^8$	17
3	2	$(T^3 - T^2 - T + 1)/(-T + 1)^5$	65
3	2	$(-T^4 + 2T^3 - 2T + 1)/(-T + 1)^6$	10

## 6 N=7

### 6.1 E=7

Table 20: Quivers with 7 Vertices and 7 Edges

Dimension	Degree	Hilbert Series	Count
0	1	1	5

### 6.2 E=8

Table 21: Quivers with 7 Vertices and 8 Edges

Dimension	Degree	Hilbert Series	Count
0	1	$(T^2 - 2T + 1)/(-T + 1)^2$	160
1	1	$1/(-T + 1)$	25

### 6.3 E=9

Table 22: Quivers with 7 Vertices and 9 Edges

Dimension	Degree	Hilbert Series	Count
0	1	$(-T^3 + 3T^2 - 3T + 1)/(-T + 1)^3$	4863
0	1	$(T^4 - 4T^3 + 6T^2 - 4T + 1)/(-T + 1)^4$	6188
1	1	$(T^2 - 2T + 1)/(-T + 1)^3$	1293
1	1	$(-T^3 + 3T^2 - 3T + 1)/(-T + 1)^4$	1490
1	2	$(-T^4 + 2T^3 - 2T + 1)/(-T + 1)^4$	6
2	1	$(T^2 - 2T + 1)/(-T + 1)^4$	364
2	1	$(-T + 1)(-2)$	144
2	2	$(T^3 - T^2 - T + 1)/(-T + 1)^4$	12

## 7 N=8

### 7.1 E=8

Table 23: Quivers with 8 Vertices and 8 Edges

Dimension	Degree	Hilbert Series	Count
0	1	1	5

### 7.2 E=9

Table 24: Quivers with 8 Vertices and 9 Edges

Dimension	Degree	Hilbert Series	Count
0	1	$(T^2 - 2T + 1)/(-T + 1)^2$	160
1	1	$1/(-T + 1)$	25

### 7.3 E=10

Table 25: Quivers with 8 Vertices and 10 Edges

Dimension	Degree	Hilbert Series	Count
0	1	$(-T^3 + 3T^2 - 3T + 1)/(-T + 1)^3$	8247
0	1	$(T^4 - 4T^3 + 6T^2 - 4T + 1)/(-T + 1)^4$	8590
1	1	$(-T^3 + 3T^2 - 3T + 1)/(-T + 1)^4$	2394
1	1	$(T^2 - 2T + 1)/(-T + 1)^3$	2210
1	2	$(-T^4 + 2T^3 - 2T + 1)/(-T + 1)^4$	30
2	1	$(-T + 1)(-2)$	268
2	1	$(T^2 - 2T + 1)/(-T + 1)^4$	528
2	2	$(T^3 - T^2 - T + 1)/(-T + 1)^4$	18

## 8 N=9

### 8.1 E=9

Table 26: Quivers with 9 Vertices and 9 Edges

Dimension	Degree	Hilbert Series	Count
0	1	1	5

### 8.2 E=10

Table 27: Quivers with 9 Vertices and 10 Edges

Dimension	Degree	Hilbert Series	Count
0	1	$(T^2 - 2T + 1)/(-T + 1)^2$	210
1	1	$1/(-T + 1)$	35

### 8.3 E=11

Table 28: Quivers with 9 Vertices and 11 Edges

Dimension	Degree	Hilbert Series	Count
0	1	$(-T^3 + 3T^2 - 3T + 1)/(-T + 1)^3$	12863
0	1	$(T^4 - 4T^3 + 6T^2 - 4T + 1)/(-T + 1)^4$	10451
1	1	$(T^2 - 2T + 1)/(-T + 1)^3$	3338
1	1	$(-T^3 + 3T^2 - 3T + 1)/(-T + 1)^4$	2981
1	2	$(-T^4 + 2T^3 - 2T + 1)/(-T + 1)^4$	32
2	1	$(T^2 - 2T + 1)/(-T + 1)^4$	582
2	1	$(-T + 1)(-2)$	384
2	2	$(T^3 - T^2 - T + 1)/(-T + 1)^4$	14

## 9 N=10

### 9.1 E=10

Table 29: Quivers with 10 Vertices and 10 Edges

Dimension	Degree	Hilbert Series	Count
0	1	1	5

### 9.2 E=11

Table 30: Quivers with 10 Vertices and 11 Edges

Dimension	Degree	Hilbert Series	Count
0	1	$(T^2 - 2T + 1)/(-T + 1)^2$	210
1	1	$1/(-T + 1)$	35

### 9.3 E=12

Table 31: Quivers with 10 Vertices and 12 Edges

Dimension	Degree	Hilbert Series	Count
0	1	$(-T^3 + 3T^2 - 3T + 1)/(-T + 1)^3$	19307
0	1	$(T^4 - 4T^3 + 6T^2 - 4T + 1)/(-T + 1)^4$	14021
1	1	$(T^2 - 2T + 1)/(-T + 1)^3$	5201
1	1	$(-T^3 + 3T^2 - 3T + 1)/(-T + 1)^4$	4215
1	2	$(-T^4 + 2T^3 - 2T + 1)/(-T + 1)^4$	54
2	1	$(T^2 - 2T + 1)/(-T + 1)^4$	744
2	1	$(-T + 1)(-2)$	622
2	2	$(T^3 - T^2 - T + 1)/(-T + 1)^4$	26