

D:\anaconda\python.exe

C:\Users\lenovo\Desktop\start\modeling\problemC\problem1_final1.py

Found 34 seasons: [np.int64(1), np.int64(2), np.int64(3), np.int64(4), np.int64(5), np.int64(6), np.int64(7), np.int64(8), np.int64(9), np.int64(10), np.int64(11), np.int64(12), np.int64(13), np.int64(14), np.int64(15), np.int64(16), np.int64(17), np.int64(18), np.int64(19), np.int64(20), np.int64(21), np.int64(22), np.int64(23), np.int64(24), np.int64(25), np.int64(26), np.int64(27), np.int64(28), np.int64(29), np.int64(30), np.int64(31), np.int64(32), np.int64(33), np.int64(34)]

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ANALYZING SEASON 1 (1/34)

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FINAL MODEL - SEASON 1

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Using 'RANK' method for season 1

Contestants: 6, Weeks: 6

Eliminations: 5

Phase 1: Global search...

Phase 2: Local refinement...

Optimization completed.

Success: True

Final objective: 832663364168445.875000

[Original Optimization Results]

Satisfaction rate: 80.0%

Average violation: 1.002000

Violation by elimination week:

Week 2: 0.000000

Week 3: 0.000000

Week 4: 5.010000

Week 5: 0.000000

Week 6: 0.000000

Top 5 estimated fan support (Week 1):

1. Evander Holyfield : 20.8%

2. Kelly Monaco : 20.3%

3. Joey McIntyre : 18.7%

4. John O'Hurley : 15.6%

5. Trista Sutter : 12.6%

=== Consistency Analysis Detail ===

Week 2: Trista Sutter | ☒ Correct
Week 3: Evander Holyfield | ☒ Correct
Week 4: Rachel Hunter | ☒ Correct
Week 5: Joey McIntyre | ☒ Correct
Week 6: John O'Hurley | ☒ Correct
Overall Consistency Accuracy: 100.0%

=== Certainty Analysis (Feasible Range Probe) ===

Average Certainty Score: 0.4047

[Certainty Analysis Summary]

Top 3 Most Certain Estimates (Highest Certainty Score):

Week	Contestant	Certainty
4	John O'Hurley	0.967628
2	Trista Sutter	0.875250
3	Rachel Hunter	0.860825

Top 3 Least Certain Estimates (Lowest Certainty Score):

Week	Contestant	Certainty
5	John O'Hurley	0.000000
2	John O'Hurley	0.041842
2	Rachel Hunter	0.043996

Full certainty report for Season 1 saved to 'season_1_certainty_analysis.csv'

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ANALYZING SEASON 2 (2/34)

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FINAL MODEL - SEASON 2

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Using 'RANK' method for season 2

Contestants: 10, Weeks: 8

Eliminations: 9

Phase 1: Global search...

Phase 2: Local refinement...

Optimization completed.

Success: True

Final objective: 1816720067276609.250000

[Original Optimization Results]

Satisfaction rate: 77.8%
Average violation: 1.113333

Violation by elimination week:

Week 1: 0.000000
Week 2: 0.000000
Week 3: 0.000000
Week 4: 0.000000
Week 5: 0.000000
Week 6: 0.000000
Week 7: 0.000000
Week 8: 5.010000
Week 8: 5.010000

Top 5 estimated fan support (Week 1):

- 1. Jerry Rice : 19.1%
- 2. Stacy Keibler : 12.1%
- 3. Master P : 9.7%
- 4. Drew Lachey : 9.7%
- 5. Giselle Fernandez : 9.6%

=== Consistency Analysis Detail ===

Week 1: Kenny Mayne | ☒ Correct
Week 2: Tatum O'Neal | ☒ Correct
Week 3: Giselle Fernandez | ☒ Correct
Week 4: Master P | ☒ Correct
Week 5: Tia Carrere | ☒ Correct
Week 6: George Hamilton | ☒ Correct
Week 7: Lisa Rinna | ☒ Correct
Week 8: Jerry Rice | ☒ Predicted: Drew Lachey
Week 8: Stacy Keibler | ☒ Predicted: Drew Lachey
Overall Consistency Accuracy: 77.8%

=== Certainty Analysis (Feasible Range Probe) ===

Average Certainty Score: 0.2751

[Certainty Analysis Summary]

Top 3 Most Certain Estimates (Highest Certainty Score):

Week	Contestant	Certainty
8	Drew Lachey	1.0
8	Jerry Rice	1.0

8 Stacy Keibler 1.0

Top 3 Least Certain Estimates (Lowest Certainty Score):

Week	Contestant	Certainty
4	Tia Carrere	0.0
4	Lisa Rinna	0.0
4	Stacy Keibler	0.0

Full certainty report for Season 2 saved to 'season_2_certainty_analysis.csv'

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ANALYZING SEASON 3 (3/34)
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FINAL MODEL - SEASON 3
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Using 'PERCENT' method for season 3
Contestants: 11, Weeks: 10
Eliminations: 10
Phase 1: Global search...
Phase 2: Local refinement...
Optimization completed.
Success: True
Final objective: 3555773.500017
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[Original Optimization Results]

Satisfaction rate: 80.0%
Average violation: 0.200200

Violation by elimination week:

Week 1: 0.000000
Week 2: 0.000000
Week 3: 0.000000
Week 4: 0.000000
Week 5: 1.001000
Week 5: 1.001000
Week 7: 0.000000
Week 8: 0.000000
Week 9: 0.000000
Week 10: 0.000001

Top 5 estimated fan support (Week 1):

1. Mario Lopez : 14.0%
2. Emmitt Smith : 13.5%
3. Joey Lawrence : 10.9%
4. Jerry Springer : 10.8%
5. Monique Coleman : 9.6%

=== Consistency Analysis Detail ===

Week 1: Tucker Carlson | ☒ Correct
Week 2: Shanna Moakler | ☒ Correct
Week 3: Harry Hamlin | ☒ Correct
Week 4: Vivica A. Fox | ☒ Correct
Week 5: Sara Evans | ☒ Correct
Week 5: Willa Ford | ☒ Predicted: Sara Evans
Week 7: Jerry Springer | ☒ Correct
Week 8: Monique Coleman | ☒ Correct
Week 9: Joey Lawrence | ☒ Correct
Week 10: Mario Lopez | ☒ Correct
Overall Consistency Accuracy: 90.0%

=== Certainty Analysis (Feasible Range Probe) ===

Average Certainty Score: 0.4067

[Certainty Analysis Summary]

Top 3 Most Certain Estimates (Highest Certainty Score):

Week	Contestant	Certainty
5	Monique Coleman	1.0
5	Jerry Springer	1.0
5	Joey Lawrence	1.0

Top 3 Least Certain Estimates (Lowest Certainty Score):

Week	Contestant	Certainty
1	Vivica A. Fox	0.0
1	Mario Lopez	0.0
1	Emmitt Smith	0.0

Full certainty report for Season 3 saved to 'season_3_certainty_analysis.csv'

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ANALYZING SEASON 4 (4/34)

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FINAL MODEL - SEASON 4

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Using 'PERCENT' method for season 4

Contestants: 11, Weeks: 10

Eliminations: 10

Phase 1: Global search...

Phase 2: Local refinement...

Optimization completed.

Success: False

Final objective: 3555775.069308

[Original Optimization Results]

Satisfaction rate: 80.0%

Average violation: 0.200200

Violation by elimination week:

Week 2: 0.000000

Week 3: 0.000000

Week 4: 0.000000

Week 5: 0.000000

Week 6: 0.000001

Week 7: 0.000000

Week 8: 0.000000

Week 9: 0.000000

Week 10: 1.000999

Week 10: 1.001001

Top 5 estimated fan support (Week 1):

1. Laila Ali : 12.0%

2. Apolo Anton Ohno : 12.0%

3. Joey Fatone : 11.9%

4. Ian Ziering : 11.6%

5. Billy Ray Cyrus : 11.4%

=== Consistency Analysis Detail ===

Week 2: Paulina Porizkova	<input checked="" type="checkbox"/> Correct
Week 3: Shandi Finnessey	<input checked="" type="checkbox"/> Correct
Week 4: Leeza Gibbons	<input checked="" type="checkbox"/> Correct
Week 5: Clyde Drexler	<input checked="" type="checkbox"/> Correct
Week 6: Heather Mills	<input checked="" type="checkbox"/> Correct
Week 7: John Ratzenberger	<input checked="" type="checkbox"/> Correct
Week 8: Billy Ray Cyrus	<input checked="" type="checkbox"/> Correct

Week 9: Ian Ziering | ☒ Correct
Week 10: Laila Ali | ☒ Correct
Week 10: Joey Fatone | ☒ Predicted: Laila Ali
Overall Consistency Accuracy: 90.0%

=== Certainty Analysis (Feasible Range Probe) ===
Average Certainty Score: 0.4574

[Certainty Analysis Summary]

Top 3 Most Certain Estimates (Highest Certainty Score):

Week	Contestant	Certainty
10	Joey Fatone	1.0
10	Apolo Anton Ohno	1.0
10	Laila Ali	1.0

Top 3 Least Certain Estimates (Lowest Certainty Score):

Week	Contestant	Certainty
5	Apolo Anton Ohno	0.028952
5	Laila Ali	0.043354
5	Joey Fatone	0.056983

Full certainty report for Season 4 saved to 'season_4_certainty_analysis.csv'

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ANALYZING SEASON 5 (5/34)

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FINAL MODEL - SEASON 5

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Using 'PERCENT' method for season 5
Contestants: 12, Weeks: 10
Eliminations: 11
Phase 1: Global search...
Phase 2: Local refinement...
Optimization completed.
Success: True
Final objective: 5597481.250333

[Original Optimization Results]
Satisfaction rate: 36.4%

Average violation: 0.348099

Violation by elimination week:

Week 1: 0.000000

Week 2: 0.526751

Week 3: 0.429955

Week 4: 0.439077

Week 5: 0.300312

Week 6: 0.000000

Week 7: 0.130992

Week 8: 0.000000

Week 9: 0.000000

Week 10: 1.004079

Week 10: 0.997921

Top 5 estimated fan support (Week 1):

1. Marie Osmond : 12.5%

2. Helio Castroneves : 12.5%

3. Mel B : 9.9%

4. Jennie Garth : 9.3%

5. Jane Seymour : 8.4%

=== Consistency Analysis Detail ===

Week 1: Josie Maran	<input checked="" type="checkbox"/> Correct
Week 2: Albert Reed	<input checked="" type="checkbox"/> Correct
Week 3: Wayne Newton	<input checked="" type="checkbox"/> Correct
Week 4: Floyd Mayweather Jr.	<input checked="" type="checkbox"/> Correct
Week 5: Mark Cuban	<input checked="" type="checkbox"/> Correct
Week 6: Sabrina Bryan	<input checked="" type="checkbox"/> Correct
Week 7: Jane Seymour	<input checked="" type="checkbox"/> Correct
Week 8: Cameron Mathison	<input checked="" type="checkbox"/> Correct
Week 9: Jennie Garth	<input checked="" type="checkbox"/> Correct
Week 10: Marie Osmond	<input checked="" type="checkbox"/> Predicted: Mel B
Week 10: Mel B	<input checked="" type="checkbox"/> Correct

Overall Consistency Accuracy: 90.9%

=== Certainty Analysis (Feasible Range Probe) ===

Average Certainty Score: 0.4114

[Certainty Analysis Summary]

Top 3 Most Certain Estimates (Highest Certainty Score):

Week	Contestant	Certainty
10	Marie Osmond	1.0

10	Mel B	1.0
10	Helio Castroneves	1.0

Top 3 Least Certain Estimates (Lowest Certainty Score):

Week	Contestant	Certainty
1	Sabrina Bryan	0.009114
1	Helio Castroneves	0.018716
1	Mel B	0.019778

Full certainty report for Season 5 saved to 'season_5_certainty_analysis.csv'

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ANALYZING SEASON 6 (6/34)

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FINAL MODEL - SEASON 6

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Using 'PERCENT' method for season 6

Contestants: 12, Weeks: 10

Eliminations: 11

Phase 1: Global search...

Phase 2: Local refinement...

Optimization completed.

Success: True

Final objective: 8296797.918544

[Original Optimization Results]

Satisfaction rate: 63.6%

Average violation: 0.364000

Violation by elimination week:

Week 2: 1.001000

Week 2: 1.001000

Week 3: 0.000000

Week 4: 0.000000

Week 5: 0.000000

Week 6: 0.000000

Week 7: 0.000000

Week 8: 0.000000

Week 9: 0.000000

Week 10: 1.001001

Week 10: 1.000999

Top 5 estimated fan support (Week 1):

1. Kristi Yamaguchi : 13.2%
2. Cristian de la Fuente: 12.5%
3. Jason Taylor : 11.2%
4. Marissa Jaret Winokur: 11.0%
5. Mario : 9.7%

=== Consistency Analysis Detail ===

Week 2: Monica Seles | ☒ Predicted: Penn Jillette
Week 2: Penn Jillette | ☒ Correct
Week 3: Steve Guttenberg | ☒ Correct
Week 4: Adam Carolla | ☒ Correct
Week 5: Priscilla Presley | ☒ Correct
Week 6: Marlee Matlin | ☒ Correct
Week 7: Shannon Elizabeth | ☒ Correct
Week 8: Mario | ☒ Correct
Week 9: Marissa Jaret Winokur | ☒ Correct
Week 10: Cristian de la Fuente | ☒ Predicted: Jason Taylor
Week 10: Jason Taylor | ☒ Correct
Overall Consistency Accuracy: 81.8%

=== Certainty Analysis (Feasible Range Probe) ===

Average Certainty Score: 0.5173

[Certainty Analysis Summary]

Top 3 Most Certain Estimates (Highest Certainty Score):

Week	Contestant	Certainty
2	Cristian de la Fuente	1.0
2	Monica Seles	1.0
10	Cristian de la Fuente	1.0

Top 3 Least Certain Estimates (Lowest Certainty Score):

Week	Contestant	Certainty
4	Shannon Elizabeth	0.036593
4	Kristi Yamaguchi	0.038085
4	Jason Taylor	0.041330

Full certainty report for Season 6 saved to 'season_6_certainty_analysis.csv'

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ANALYZING SEASON 7 (7/34)

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FINAL MODEL - SEASON 7

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Using 'PERCENT' method for season 7

Contestants: 13, Weeks: 10

Eliminations: 12

Phase 1: Global search...

Phase 2: Local refinement...

Optimization completed.

Success: True

Final objective: 14223082.113601

[Original Optimization Results]

Satisfaction rate: 50.0%

Average violation: 0.500500

Violation by elimination week:

Week 1: 1.001001

Week 1: 1.000999

Week 2: 1.000999

Week 2: 1.001001

Week 4: 0.000000

Week 5: 0.000000

Week 6: 0.000000

Week 7: 0.000000

Week 8: 0.000000

Week 9: 0.000000

Week 10: 1.001000

Week 10: 1.001000

Top 5 estimated fan support (Week 1):

1. Brooke Burke : 10.6%

2. Warren Sapp : 10.3%

3. Lance Bass : 10.3%

4. Cody Linley : 9.9%

5. Cloris Leachman : 9.6%

=== Consistency Analysis Detail ===

Week 1: Jeffrey Ross | ☒ Predicted: Ted McGinley

Week 1: Ted McGinley | ☒ Correct

Week 2: Kim Kardashian | ☒ Correct
 Week 2: Misty May-Treanor | ☒ Predicted: Kim Kardashian
 Week 4: Rocco DiSpirito | ☒ Correct
 Week 5: Toni Braxton | ☒ Correct
 Week 6: Cloris Leachman | ☒ Correct
 Week 7: Susan Lucci | ☒ Correct
 Week 8: Maurice Greene | ☒ Correct
 Week 9: Cody Linley | ☒ Correct
 Week 10: Warren Sapp | ☒ Predicted: Lance Bass
 Week 10: Lance Bass | ☒ Correct
 Overall Consistency Accuracy: 75.0%

=== Certainty Analysis (Feasible Range Probe) ===
 Average Certainty Score: 0.6079

[Certainty Analysis Summary]

Top 3 Most Certain Estimates (Highest Certainty Score):

Week	Contestant	Certainty
1	Ted McGinley	1.0
2	Cloris Leachman	1.0
10	Brooke Burke	1.0

Top 3 Least Certain Estimates (Lowest Certainty Score):

Week	Contestant	Certainty
4	Lance Bass	0.052532
4	Brooke Burke	0.052642
4	Susan Lucci	0.057575

Full certainty report for Season 7 saved to 'season_7_certainty_analysis.csv'

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 ANALYZING SEASON 8 (8/34)
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 FINAL MODEL - SEASON 8
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 Using 'PERCENT' method for season 8
 Contestants: 13, Weeks: 11
 Eliminations: 12
 Phase 1: Global search...

Phase 2: Local refinement...
Optimization completed.
Success: True
Final objective: 8302980.877350

[Original Optimization Results]
Satisfaction rate: 66.7%
Average violation: 0.333667

Violation by elimination week:

Week 2: 0.000000
Week 3: 0.000000
Week 4: 1.011079
Week 4: 0.990921
Week 5: 0.000000
Week 6: 0.000000
Week 7: 0.000000
Week 8: 0.000000
Week 9: 0.000000
Week 10: 0.000000
Week 11: 0.997294
Week 11: 1.004706

Top 5 estimated fan support (Week 1):

1. Shawn Johnson	:	10.7%
2. Melissa Rycroft	:	10.5%
3. Gilles Marini	:	10.4%
4. Ty Murray	:	9.0%
5. Steve-O	:	8.9%

=== Consistency Analysis Detail ===

Week 2: Belinda Carlisle		<input checked="" type="checkbox"/> Correct
Week 3: Denise Richards		<input checked="" type="checkbox"/> Correct
Week 4: Steve Wozniak		<input checked="" type="checkbox"/> Predicted: Holly Madison
Week 4: Holly Madison		<input checked="" type="checkbox"/> Correct
Week 5: David Alan Grier		<input checked="" type="checkbox"/> Correct
Week 6: Steve-O		<input checked="" type="checkbox"/> Correct
Week 7: Lawrence Taylor		<input checked="" type="checkbox"/> Correct
Week 8: Chuck Wicks		<input checked="" type="checkbox"/> Correct
Week 9: Lil' Kim		<input checked="" type="checkbox"/> Correct
Week 10: Ty Murray		<input checked="" type="checkbox"/> Correct
Week 11: Melissa Rycroft		<input checked="" type="checkbox"/> Correct
Week 11: Gilles Marini		<input checked="" type="checkbox"/> Predicted: Melissa Rycroft

Overall Consistency Accuracy: 83.3%

=== Certainty Analysis (Feasible Range Probe) ===

Average Certainty Score: 0.5673

[Certainty Analysis Summary]

Top 3 Most Certain Estimates (Highest Certainty Score):

Week	Contestant	Certainty
11	Melissa Rycroft	1.0
4	David Alan Grier	1.0
4	Lawrence Taylor	1.0

Top 3 Least Certain Estimates (Lowest Certainty Score):

Week	Contestant	Certainty
6	Lil' Kim	0.063428
6	Melissa Rycroft	0.073612
6	Gilles Marini	0.077666

Full certainty report for Season 8 saved to 'season_8_certainty_analysis.csv'

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ANALYZING SEASON 9 (9/34)

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FINAL MODEL - SEASON 9

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Using 'PERCENT' method for season 9

Contestants: 16, Weeks: 10

Eliminations: 15

Phase 1: Global search...

Phase 2: Local refinement...

Optimization completed.

Success: False

Final objective: 29631462.139301

[Original Optimization Results]

Satisfaction rate: 33.3%

Average violation: 0.667333

Violation by elimination week:

Week 1: 1.000991

Week 1: 1.001009
Week 2: 0.000001
Week 3: 1.001026
Week 3: 1.000974
Week 4: 0.000000
Week 5: 0.000000
Week 6: 1.001004
Week 6: 1.000996
Week 7: 1.000990
Week 7: 1.001010
Week 8: 0.000000
Week 9: 0.000000
Week 10: 1.001005
Week 10: 1.000995

Top 5 estimated fan support (Week 1):

- | | | |
|-------------------|---|------|
| 1. Donny Osmond | : | 8.8% |
| 2. Kelly Osbourne | : | 8.7% |
| 3. Mark Dacascos | : | 8.5% |
| 4. Mya | : | 7.6% |
| 5. Joanna Krupa | : | 7.5% |

=== Consistency Analysis Detail ===

Week 1: Ashley Hamilton		<input checked="" type="checkbox"/> Correct
Week 1: Macy Gray		<input checked="" type="checkbox"/> Predicted: Ashley Hamilton
Week 2: Kathy Ireland		<input checked="" type="checkbox"/> Correct
Week 3: Tom DeLay		<input checked="" type="checkbox"/> Predicted: Debi Mazar
Week 3: Debi Mazar		<input checked="" type="checkbox"/> Correct
Week 4: Chuck Liddell		<input checked="" type="checkbox"/> Correct
Week 5: Natalie Coughlin		<input checked="" type="checkbox"/> Correct
Week 6: Melissa Joan Hart		<input checked="" type="checkbox"/> Predicted: Louie Vito
Week 6: Louie Vito		<input checked="" type="checkbox"/> Correct
Week 7: Mark Dacascos		<input checked="" type="checkbox"/> Correct
Week 7: Michael Irvin		<input checked="" type="checkbox"/> Predicted: Mark Dacascos
Week 8: Aaron Carter		<input checked="" type="checkbox"/> Correct
Week 9: Joanna Krupa		<input checked="" type="checkbox"/> Correct
Week 10: Kelly Osbourne		<input checked="" type="checkbox"/> Predicted: Mya
Week 10: Mya		<input checked="" type="checkbox"/> Correct

Overall Consistency Accuracy: 66.7%

=== Certainty Analysis (Feasible Range Probe) ===

Average Certainty Score: 0.6077

[Certainty Analysis Summary]

Top 3 Most Certain Estimates (Highest Certainty Score):

Week	Contestant	Certainty
1	Donny Osmond	1.0
3	Natalie Coughlin	1.0
1	Macy Gray	1.0

Top 3 Least Certain Estimates (Lowest Certainty Score):

Week	Contestant	Certainty
1	Joanna Krupa	0.000000
1	Aaron Carter	0.003689
1	Mya	0.007613

Full certainty report for Season 9 saved to 'season_9_certainty_analysis.csv'

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ANALYZING SEASON 10 (10/34)
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FINAL MODEL - SEASON 10
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Using 'PERCENT' method for season 10
Contestants: 11, Weeks: 10
Eliminations: 10
Phase 1: Global search...
Phase 2: Local refinement...
Optimization completed.
Success: True
Final objective: 3555772.191665
```

[Original Optimization Results]

Satisfaction rate: 80.0%
Average violation: 0.200200

Violation by elimination week:

Week 2: 0.000000
Week 3: 0.000000
Week 4: 0.000000
Week 5: 0.000000
Week 6: 0.000000
Week 7: 0.000001

Week 8: 0.000000
Week 9: 0.000000
Week 10: 1.001002
Week 10: 1.000998

Top 5 estimated fan support (Week 1):

1. Evan Lysacek : 10.5%
2. Nicole Scherzinger : 10.5%
3. Erin Andrews : 10.3%
4. Chad Ochocinco : 10.3%
5. Kate Gosselin : 10.0%

=== Consistency Analysis Detail ===

Week 2: Shannen Doherty	<input checked="" type="checkbox"/> Correct
Week 3: Buzz Aldrin	<input checked="" type="checkbox"/> Correct
Week 4: Aiden Turner	<input checked="" type="checkbox"/> Correct
Week 5: Kate Gosselin	<input checked="" type="checkbox"/> Correct
Week 6: Jake Pavelka	<input checked="" type="checkbox"/> Correct
Week 7: Pamela Anderson	<input checked="" type="checkbox"/> Correct
Week 8: Niecy Nash	<input checked="" type="checkbox"/> Correct
Week 9: Chad Ochocinco	<input checked="" type="checkbox"/> Correct
Week 10: Evan Lysacek	<input checked="" type="checkbox"/> Predicted: Erin Andrews
Week 10: Erin Andrews	<input checked="" type="checkbox"/> Correct

Overall Consistency Accuracy: 90.0%

=== Certainty Analysis (Feasible Range Probe) ===

Average Certainty Score: 0.3761

[Certainty Analysis Summary]

Top 3 Most Certain Estimates (Highest Certainty Score):

Week	Contestant	Certainty
10	Nicole Scherzinger	1.0
10	Erin Andrews	1.0
10	Nicole Scherzinger	1.0

Top 3 Least Certain Estimates (Lowest Certainty Score):

Week	Contestant	Certainty
3	Evan Lysacek	0.049978
3	Nicole Scherzinger	0.058560
3	Erin Andrews	0.059356

Full certainty report for Season 10 saved to 'season_10_certainty_analysis.csv'

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ANALYZING SEASON 11 (11/34)

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FINAL MODEL - SEASON 11

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Using 'PERCENT' method for season 11

Contestants: 12, Weeks: 10

Eliminations: 11

Phase 1: Global search...

Phase 2: Local refinement...

Optimization completed.

Success: True

Final objective: 3884313.929305

[Original Optimization Results]

Satisfaction rate: 72.7%

Average violation: 0.204551

Violation by elimination week:

Week 1: 0.248064

Week 2: 0.000000

Week 3: 0.000000

Week 4: 0.000000

Week 5: 0.000000

Week 6: 0.000000

Week 7: 0.000000

Week 8: 0.000000

Week 9: 0.000000

Week 10: 1.002155

Week 10: 0.999845

Top 5 estimated fan support (Week 1):

1. Jennifer Grey : 13.8%

2. Kyle Massey : 13.4%

3. Bristol Palin : 12.4%

4. Kurt Warner : 11.5%

5. Brandy : 10.8%

=== Consistency Analysis Detail ===

Week 1: David Hasselhoff | ☒ Correct

Week 2: Michael Bolton		<input checked="" type="checkbox"/> Correct
Week 3: Margaret Cho		<input checked="" type="checkbox"/> Correct
Week 4: The Situation		<input checked="" type="checkbox"/> Correct
Week 5: Florence Henderson		<input checked="" type="checkbox"/> Correct
Week 6: Audrina Patridge		<input checked="" type="checkbox"/> Correct
Week 7: Rick Fox		<input checked="" type="checkbox"/> Correct
Week 8: Kurt Warner		<input checked="" type="checkbox"/> Correct
Week 9: Brandy		<input checked="" type="checkbox"/> Correct
Week 10: Bristol Palin		<input checked="" type="checkbox"/> Predicted: Kyle Massey
Week 10: Kyle Massey		<input checked="" type="checkbox"/> Correct

Overall Consistency Accuracy: 90.9%

=== Certainty Analysis (Feasible Range Probe) ===
Average Certainty Score: 0.3086

[Certainty Analysis Summary]

Top 3 Most Certain Estimates (Highest Certainty Score):

Week	Contestant	Certainty
10	Bristol Palin	1.0
10	Jennifer Grey	1.0
10	Kyle Massey	1.0

Top 3 Least Certain Estimates (Lowest Certainty Score):

Week	Contestant	Certainty
4	Jennifer Grey	0.0
2	Audrina Patridge	0.0
2	Jennifer Grey	0.0

Full certainty report for Season 11 saved to 'season_11_certainty_analysis.csv'

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ANALYZING SEASON 12 (12/34)

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FINAL MODEL - SEASON 12

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Using 'PERCENT' method for season 12

Contestants: 11, Weeks: 10

Eliminations: 10

Phase 1: Global search...

Phase 2: Local refinement...
Optimization completed.
Success: False
Final objective: 3555778.141806

[Original Optimization Results]
Satisfaction rate: 80.0%
Average violation: 0.200200

Violation by elimination week:
Week 2: 0.000000
Week 3: 0.000000
Week 4: 0.000001
Week 5: 0.000000
Week 6: 0.000000
Week 7: 0.000000
Week 8: 0.000000
Week 9: 0.000000
Week 10: 1.001004
Week 10: 1.000996

Top 5 estimated fan support (Week 1):
1. Kirstie Alley : 13.1%
2. Ralph Macchio : 13.1%
3. Hines Ward : 13.1%
4. Chelsea Kane : 12.2%
5. Romeo : 9.9%

=== Consistency Analysis Detail ===

Week 2: Mike Catherwood	<input checked="" type="checkbox"/> Correct
Week 3: Wendy Williams	<input checked="" type="checkbox"/> Correct
Week 4: Sugar Ray Leonard	<input checked="" type="checkbox"/> Correct
Week 5: Petra Nemcova	<input checked="" type="checkbox"/> Correct
Week 6: Chris Jericho	<input checked="" type="checkbox"/> Correct
Week 7: Kendra Wilkinson	<input checked="" type="checkbox"/> Correct
Week 8: Romeo	<input checked="" type="checkbox"/> Correct
Week 9: Ralph Macchio	<input checked="" type="checkbox"/> Correct
Week 10: Kirstie Alley	<input checked="" type="checkbox"/> Predicted: Chelsea Kane
Week 10: Chelsea Kane	<input checked="" type="checkbox"/> Correct

Overall Consistency Accuracy: 90.0%

=== Certainty Analysis (Feasible Range Probe) ===
Average Certainty Score: 0.3424

[Certainty Analysis Summary]

Top 3 Most Certain Estimates (Highest Certainty Score):

Week	Contestant	Certainty
10	Hines Ward	1.0
10	Hines Ward	1.0
10	Kirstie Alley	1.0

Top 3 Least Certain Estimates (Lowest Certainty Score):

Week	Contestant	Certainty
3	Petra Nemcova	0.026768
3	Hines Ward	0.034901
3	Kendra Wilkinson	0.040763

Full certainty report for Season 12 saved to 'season_12_certainty_analysis.csv'

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ANALYZING SEASON 13 (13/34)

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FINAL MODEL - SEASON 13

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Using 'PERCENT' method for season 13

Contestants: 12, Weeks: 10

Eliminations: 11

Phase 1: Global search...

Phase 2: Local refinement...

Optimization completed.

Success: False

Final objective: 3555846.294350

[Original Optimization Results]

Satisfaction rate: 81.8%

Average violation: 0.182000

Violation by elimination week:

Week 1: 0.000000

Week 2: 0.000000

Week 3: 0.000000

Week 4: 0.000000

Week 5: 0.000000

Week 6: 0.000001
Week 7: 0.000000
Week 8: 0.000000
Week 9: 0.000000
Week 10: 1.001001
Week 10: 1.000999

Top 5 estimated fan support (Week 1):

1. J.R. Martinez	:	11.6%
2. Hope Solo	:	11.4%
3. Ricki Lake	:	11.0%
4. Chaz Bono	:	9.7%
5. Nancy Grace	:	9.7%

=== Consistency Analysis Detail ===

Week 1: Metta World Peace (Ron)		<input checked="" type="checkbox"/> Correct
Week 2: Elisabetta Canalis		<input checked="" type="checkbox"/> Correct
Week 3: Kristin Cavallari		<input checked="" type="checkbox"/> Correct
Week 4: Chynna Phillips		<input checked="" type="checkbox"/> Correct
Week 5: Carson Kressley		<input checked="" type="checkbox"/> Correct
Week 6: Chaz Bono		<input checked="" type="checkbox"/> Correct
Week 7: David Arquette		<input checked="" type="checkbox"/> Correct
Week 8: Nancy Grace		<input checked="" type="checkbox"/> Correct
Week 9: Hope Solo		<input checked="" type="checkbox"/> Correct
Week 10: Ricki Lake		<input checked="" type="checkbox"/> Predicted: Rob Kardashian
Week 10: Rob Kardashian		<input checked="" type="checkbox"/> Correct

Overall Consistency Accuracy: 90.9%

=== Certainty Analysis (Feasible Range Probe) ===

Average Certainty Score: 0.3766

[Certainty Analysis Summary]

Top 3 Most Certain Estimates (Highest Certainty Score):

Week	Contestant	Certainty
10	J.R. Martinez	1.0
10	Rob Kardashian	1.0
10	J.R. Martinez	1.0

Top 3 Least Certain Estimates (Lowest Certainty Score):

Week	Contestant	Certainty
1	Chynna Phillips	0.003519
1	J.R. Martinez	0.005816
1	Ricki Lake	0.010957

Full certainty report for Season 13 saved to 'season_13_certainty_analysis.csv'

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ANALYZING SEASON 14 (14/34)
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FINAL MODEL - SEASON 14
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Using 'PERCENT' method for season 14

Contestants: 12, Weeks: 10

Eliminations: 11

Phase 1: Global search...

Phase 2: Local refinement...

Optimization completed.

Success: False

Final objective: 8296883.369458

[Original Optimization Results]

Satisfaction rate: 63.6%

Average violation: 0.364000

Violation by elimination week:

Week 2: 0.000000

Week 3: 0.000000

Week 4: 0.000000

Week 5: 0.000000

Week 6: 0.000000

Week 7: 0.000001

Week 8: 1.000886

Week 8: 1.001114

Week 9: 0.000000

Week 10: 1.000911

Week 10: 1.001089

Top 5 estimated fan support (Week 1):

1. Katherine Jenkins : 14.2%

2. William Levy : 12.9%

3. Donald Driver : 10.7%

4. Jaleel White : 8.9%

5. Maria Menounos : 8.5%

=== Consistency Analysis Detail ===

Week 2: Martina Navratilova | ☒ Correct
Week 3: Jack Wagner | ☒ Correct
Week 4: Sherri Sheperd | ☒ Correct
Week 5: Gavin DeGraw | ☒ Correct
Week 6: Gladys Knight | ☒ Correct
Week 7: Jaleel White | ☒ Correct
Week 8: Melissa Gilbert | ☒ Correct
Week 8: Roshon Fegan | ☒ Predicted: Melissa Gilbert
Week 9: Maria Menounos | ☒ Correct
Week 10: William Levy | ☒ Correct
Week 10: Katherine Jenkins | ☒ Predicted: William Levy
Overall Consistency Accuracy: 81.8%

=== Certainty Analysis (Feasible Range Probe) ===

Average Certainty Score: 0.3464

[Certainty Analysis Summary]

Top 3 Most Certain Estimates (Highest Certainty Score):

Week	Contestant	Certainty
10	Katherine Jenkins	1.0
8	Katherine Jenkins	1.0
8	Melissa Gilbert	1.0

Top 3 Least Certain Estimates (Lowest Certainty Score):

Week	Contestant	Certainty
2	Roshon Fegan	0.004564
2	Katherine Jenkins	0.006952
2	Maria Menounos	0.010779

Full certainty report for Season 14 saved to 'season_14_certainty_analysis.csv'

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ANALYZING SEASON 15 (15/34)

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FINAL MODEL - SEASON 15

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Using 'PERCENT' method for season 15

Contestants: 13, Weeks: 10
Eliminations: 12
Phase 1: Global search...
Phase 2: Local refinement...
Optimization completed.
Success: True
Final objective: 22591569.206508

[Original Optimization Results]

Satisfaction rate: 33.3%
Average violation: 0.667341

Violation by elimination week:

Week 1: 0.000000
Week 2: 0.000000
Week 3: 0.930462
Week 3: 1.071538
Week 4: 0.000000
Week 6: 0.000000
Week 8: 0.890405
Week 8: 1.111691
Week 9: 0.992829
Week 9: 1.009171
Week 10: 1.033388
Week 10: 0.968612

Top 5 estimated fan support (Week 1):

1. Shawn Johnson : 10.3%
2. Melissa Rycroft : 10.2%
3. Kirstie Alley : 10.2%
4. Kelly Monaco : 10.2%
5. Emmitt Smith : 9.9%

=== Consistency Analysis Detail ===

Week 1: Pamela Anderson | ☒ Correct
Week 2: Joey Fatone | ☒ Correct
Week 3: Drew Lachey | ☒ Correct
Week 3: Helio Castroneves | ☒ Predicted: Drew Lachey
Week 4: Bristol Palin | ☒ Correct
Week 6: Sabrina Bryan | ☒ Correct
Week 8: Kirstie Alley | ☒ Correct
Week 8: Gilles Marini | ☒ Predicted: Kirstie Alley
Week 9: Emmitt Smith | ☒ Correct
Week 9: Apolo Anton Ohno | ☒ Predicted: Emmitt Smith

Week 10: Shawn Johnson | ✗ Predicted: Kelly Monaco
Week 10: Kelly Monaco | ✓ Correct
Overall Consistency Accuracy: 66.7%

=== Certainty Analysis (Feasible Range Probe) ===
Average Certainty Score: 0.5493

[Certainty Analysis Summary]

Top 3 Most Certain Estimates (Highest Certainty Score):

Week	Contestant	Certainty
8	Kirstie Alley	1.0
8	Melissa Rycroft	1.0
3	Gilles Marini	1.0

Top 3 Least Certain Estimates (Lowest Certainty Score):

Week	Contestant	Certainty
1	Emmitt Smith	0.014814
1	Gilles Marini	0.018144
1	Sabrina Bryan	0.023033

Full certainty report for Season 15 saved to 'season_15_certainty_analysis.csv'

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ANALYZING SEASON 16 (16/34)

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FINAL MODEL - SEASON 16

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Using 'PERCENT' method for season 16
Contestants: 12, Weeks: 10
Eliminations: 11
Phase 1: Global search...
Phase 2: Local refinement...
Optimization completed.
Success: True
Final objective: 5779578.765635

[Original Optimization Results]
Satisfaction rate: 72.7%
Average violation: 0.273010

Violation by elimination week:

Week 2: 0.000000

Week 3: 0.000000

Week 4: 0.000000

Week 5: 0.000000

Week 6: 0.000000

Week 7: 0.000000

Week 8: 0.000000

Week 9: 0.000000

Week 10: 1.000995

Week 10: 1.001112

Week 10: 1.001005

Top 5 estimated fan support (Week 1):

1. Zendaya : 13.5%

2. Kellie Pickler : 13.0%

3. Jacoby Jones : 12.2%

4. Alexandra Raisman : 12.0%

5. Andy Dick : 9.4%

=== Consistency Analysis Detail ===

Week 2: Dorothy Hamill | ☒ Correct

Week 3: Wynonna Judd | ☒ Correct

Week 4: Lisa Vanderpump | ☒ Correct

Week 5: D. L. Hughley | ☒ Correct

Week 6: Victor Ortiz | ☒ Correct

Week 7: Andy Dick | ☒ Correct

Week 8: Sean Lowe | ☒ Correct

Week 9: Ingo Rademacher | ☒ Correct

Week 10: Jacoby Jones | ☒ Correct

Week 10: Alexandra Raisman | ☒ Predicted: Jacoby Jones

Week 10: Zendaya | ☒ Predicted: Jacoby Jones

Overall Consistency Accuracy: 81.8%

=== Certainty Analysis (Feasible Range Probe) ===

Average Certainty Score: 0.2438

[Certainty Analysis Summary]

Top 3 Most Certain Estimates (Highest Certainty Score):

Week	Contestant	Certainty
10	Kellie Pickler	1.0
10	Jacoby Jones	1.0

10 Jacoby Jones 1.0

Top 3 Least Certain Estimates (Lowest Certainty Score):

Week	Contestant	Certainty
3	Alexandra Raisman	0.0
2	Zendaya	0.0
2	Alexandra Raisman	0.0

Full certainty report for Season 16 saved to 'season_16_certainty_analysis.csv'

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ANALYZING SEASON 17 (17/34)
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FINAL MODEL - SEASON 17
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Using 'PERCENT' method for season 17
Contestants: 12, Weeks: 11
Eliminations: 11
Phase 1: Global search...
Phase 2: Local refinement...
Optimization completed.
Success: True
Final objective: 6409815.907600
```

[Original Optimization Results]
Satisfaction rate: 63.6%
Average violation: 0.321454

Violation by elimination week:

Week 2: 0.532999
Week 3: 0.000000
Week 4: 0.000000
Week 5: 0.000000
Week 7: 0.000000
Week 8: 0.000000
Week 9: 0.000000
Week 10: 0.000000
Week 11: 1.001000
Week 11: 1.001000
Week 11: 1.001000

Top 5 estimated fan support (Week 1):

1. Bill Engvall : 12.1%
2. Amber Riley : 12.1%
3. Jack Osbourne : 11.2%
4. Corbin Bleu : 10.5%
5. Leah Remini : 10.1%

=== Consistency Analysis Detail ===

Week 2: Keyshawn Johnson | ☒ Correct
Week 3: Bill Nye | ☒ Correct
Week 4: Valerie Harper | ☒ Correct
Week 5: Christina Milian | ☒ Correct
Week 7: Nicole "Snooki" Polizzi | ☒ Correct
Week 8: Brant Daugherty | ☒ Correct
Week 9: Elizabeth Berkley Lauren | ☒ Correct
Week 10: Leah Remini | ☒ Correct
Week 11: Bill Engvall | ☒ Predicted: Jack Osbourne
Week 11: Jack Osbourne | ☒ Correct
Week 11: Corbin Bleu | ☒ Predicted: Jack Osbourne
Overall Consistency Accuracy: 81.8%

=== Certainty Analysis (Feasible Range Probe) ===

Average Certainty Score: 0.4725

[Certainty Analysis Summary]

Top 3 Most Certain Estimates (Highest Certainty Score):

Week	Contestant	Certainty
11	Jack Osbourne	1.0
11	Corbin Bleu	1.0
11	Bill Engvall	1.0

Top 3 Least Certain Estimates (Lowest Certainty Score):

Week	Contestant	Certainty
4	Corbin Bleu	0.041078
4	Elizabeth Berkley Lauren	0.043045
4	Amber Riley	0.046855

Full certainty report for Season 17 saved to 'season_17_certainty_analysis.csv'

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ANALYZING SEASON 18 (18/34)

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FINAL MODEL - SEASON 18

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Using 'PERCENT' method for season 18

Contestants: 12, Weeks: 10

Eliminations: 11

Phase 1: Global search...

Phase 2: Local refinement...

Optimization completed.

Success: True

Final objective: 11111916.474850

[Original Optimization Results]

Satisfaction rate: 54.5%

Average violation: 0.455000

Violation by elimination week:

Week 1: 0.000000

Week 2: 1.001017

Week 2: 1.000983

Week 5: 0.000000

Week 6: 0.000000

Week 7: 0.000000

Week 8: 0.000000

Week 9: 0.000000

Week 10: 1.001000

Week 10: 1.001000

Week 10: 1.001000

Top 5 estimated fan support (Week 1):

1. Candace Cameron Bure: 12.6%

2. Meryl Davis : 10.9%

3. Charlie White : 10.6%

4. Amy Purdy : 10.3%

5. James Maslow : 10.1%

=== Consistency Analysis Detail ===

Week 1: Diana Nyad | ☒ Correct

Week 2: Billy Dee Williams | ☒ Predicted: Sean Avery

Week 2: Sean Avery | ☒ Correct

Week 5: Cody Simpson | ☒ Correct

Week 6: Drew Carey | ☒ Correct
 Week 7: NeNe Leakes | ☒ Correct
 Week 8: Danica McKellar | ☒ Correct
 Week 9: Charlie White | ☒ Correct
 Week 10: Candace Cameron Bure | ☒ Predicted: James Maslow
 Week 10: James Maslow | ☒ Correct
 Week 10: Amy Purdy | ☒ Predicted: James Maslow
 Overall Consistency Accuracy: 72.7%

=== Certainty Analysis (Feasible Range Probe) ===
 Average Certainty Score: 0.6332

[Certainty Analysis Summary]

Top 3 Most Certain Estimates (Highest Certainty Score):

Week	Contestant	Certainty
10	Meryl Davis	1.0
2	Sean Avery	1.0
10	James Maslow	1.0

Top 3 Least Certain Estimates (Lowest Certainty Score):

Week	Contestant	Certainty
1	Billy Dee Williams	0.058141
5	Drew Carey	0.077780
7	Meryl Davis	0.102491

Full certainty report for Season 18 saved to 'season_18_certainty_analysis.csv'

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ANALYZING SEASON 19 (19/34)

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FINAL MODEL - SEASON 19

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Using 'PERCENT' method for season 19

Contestants: 13, Weeks: 11

Eliminations: 12

Phase 1: Global search...

Phase 2: Local refinement...

Optimization completed.

Success: True

Final objective: 9820855.954579

[Original Optimization Results]

Satisfaction rate: 33.3%

Average violation: 0.462919

Violation by elimination week:

Week 1: 0.553100

Week 2: 0.261243

Week 3: 0.000000

Week 4: 0.505938

Week 6: 0.804982

Week 7: 0.000000

Week 8: 0.414135

Week 9: 0.000000

Week 10: 0.000000

Week 11: 1.013629

Week 11: 0.991072

Week 11: 1.010928

Top 5 estimated fan support (Week 1):

1. Bethany Mota : 10.4%

2. Tommy Chong : 10.3%

3. Sadie Robertson : 10.0%

4. Janel Parrish : 10.0%

5. Alfonso Ribeiro : 10.0%

=== Consistency Analysis Detail ===

Week 1: Lolo Jones | ☒ Correct

Week 2: Tavis Smiley | ☒ Correct

Week 3: Randy Couture | ☒ Correct

Week 4: Betsey Johnson | ☒ Correct

Week 6: Jonathan Bennett | ☒ Correct

Week 7: Antonio Sabato Jr. | ☒ Correct

Week 8: Michael Waltrip | ☒ Correct

Week 9: Lea Thompson | ☒ Correct

Week 10: Tommy Chong | ☒ Correct

Week 11: Bethany Mota | ☒ Predicted: Janel Parrish

Week 11: Janel Parrish | ☒ Correct

Week 11: Sadie Robertson | ☒ Predicted: Janel Parrish

Overall Consistency Accuracy: 83.3%

=== Certainty Analysis (Feasible Range Probe) ===

Average Certainty Score: 0.5199

[Certainty Analysis Summary]

Top 3 Most Certain Estimates (Highest Certainty Score):

Week	Contestant	Certainty
11	Sadie Robertson	1.0
11	Sadie Robertson	1.0
11	Janel Parrish	1.0

Top 3 Least Certain Estimates (Lowest Certainty Score):

Week	Contestant	Certainty
3	Janel Parrish	0.016539
3	Bethany Mota	0.017002
3	Tommy Chong	0.033712

Full certainty report for Season 19 saved to 'season_19_certainty_analysis.csv'

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ANALYZING SEASON 20 (20/34)

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FINAL MODEL - SEASON 20

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Using 'PERCENT' method for season 20

Contestants: 12, Weeks: 10

Eliminations: 11

Phase 1: Global search...

Phase 2: Local refinement...

Optimization completed.

Success: True

Final objective: 12853581.752613

[Original Optimization Results]

Satisfaction rate: 18.2%

Average violation: 0.586392

Violation by elimination week:

Week 2: 0.574544

Week 3: 0.137293

Week 4: 0.719032

Week 5: 0.578699

Week 6: 0.000000
Week 7: 0.436742
Week 8: 1.033874
Week 8: 0.968126
Week 9: 0.000000
Week 10: 0.979089
Week 10: 1.022911

Top 5 estimated fan support (Week 1):

1. Noah Galloway : 10.9%
2. Robert Herjavec : 10.8%
3. Chris Soules : 10.5%
4. Rumer Willis : 10.0%
5. Riker Lynch : 9.8%

=== Consistency Analysis Detail ===

Week 2: Redfoo | ☒ Correct
Week 3: Charlotte McKinney | ☒ Correct
Week 4: Michael Sam | ☒ Correct
Week 5: Suzanne Somers | ☒ Correct
Week 6: Patti LaBelle | ☒ Correct
Week 7: Willow Shields | ☒ Correct
Week 8: Robert Herjavec | ☒ Predicted: Chris Soules
Week 8: Chris Soules | ☒ Correct
Week 9: Nastia Liukin | ☒ Correct
Week 10: Noah Galloway | ☒ Correct
Week 10: Riker Lynch | ☒ Predicted: Noah Galloway
Overall Consistency Accuracy: 81.8%

=== Certainty Analysis (Feasible Range Probe) ===

Average Certainty Score: 0.6065

[Certainty Analysis Summary]

Top 3 Most Certain Estimates (Highest Certainty Score):

Week	Contestant	Certainty
10	Noah Galloway	1.0
8	Chris Soules	1.0
8	Riker Lynch	1.0

Top 3 Least Certain Estimates (Lowest Certainty Score):

Week	Contestant	Certainty
3	Nastia Liukin	0.028830
3	Riker Lynch	0.030817

Full certainty report for Season 20 saved to 'season_20_certainty_analysis.csv'

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ANALYZING SEASON 21 (21/34)
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FINAL MODEL - SEASON 21
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Using 'PERCENT' method for season 21

Contestants: 13, Weeks: 11

Eliminations: 12

Phase 1: Global search...

Phase 2: Local refinement...

Optimization completed.

Success: False

Final objective: 22390996.335554

[Original Optimization Results]

Satisfaction rate: 33.3%

Average violation: 0.671935

Violation by elimination week:

Week 2: 1.049033

Week 2: 1.056207

Week 2: 0.952967

Week 4: 0.000000

Week 6: 0.000000

Week 7: 0.000000

Week 8: 0.000000

Week 9: 0.974884

Week 9: 1.027116

Week 11: 1.001010

Week 11: 1.000996

Week 11: 1.001004

Top 5 estimated fan support (Week 1):

1. Bindi Irwin : 15.1%

2. Tamar Braxton : 14.6%

3. Alek Skarlatos : 13.0%

- 4. Nick Carter : 12.7%
- 5. Carlos PenaVega : 11.3%

=== Consistency Analysis Detail ===

Week 2: Chaka Khan | ✗ Predicted: Kim Zolciak-Biermann
Week 2: Victor Espinoza | ✗ Predicted: Kim Zolciak-Biermann
Week 2: Kim Zolciak-Biermann | ✓ Correct
Week 4: Gary Busey | ✓ Correct
Week 6: Paula Deen | ✓ Correct
Week 7: Hayes Grier | ✓ Correct
Week 8: Andy Grammer | ✓ Correct
Week 9: Tamar Braxton | ✓ Correct
Week 9: Alexa PenaVega | ✗ Predicted: Tamar Braxton
Week 11: Alek Skarlatos | ✗ Predicted: Carlos PenaVega
Week 11: Carlos PenaVega | ✓ Correct
Week 11: Nick Carter | ✗ Predicted: Carlos PenaVega
Overall Consistency Accuracy: 58.3%

=== Certainty Analysis (Feasible Range Probe) ===

Average Certainty Score: 0.6442

[Certainty Analysis Summary]

Top 3 Most Certain Estimates (Highest Certainty Score):

Week	Contestant	Certainty
2	Gary Busey	1.0
9	Nick Carter	1.0
2	Kim Zolciak-Biermann	1.0

Top 3 Least Certain Estimates (Lowest Certainty Score):

Week	Contestant	Certainty
4	Bindi Irwin	0.0
4	Hayes Grier	0.0
4	Nick Carter	0.0

Full certainty report for Season 21 saved to 'season_21_certainty_analysis.csv'

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ANALYZING SEASON 22 (22/34)

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FINAL MODEL - SEASON 22

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Using 'PERCENT' method for season 22

Contestants: 12, Weeks: 10

Eliminations: 11

Phase 1: Global search...

Phase 2: Local refinement...

Optimization completed.

Success: True

Final objective: 15181627.862646

[Original Optimization Results]

Satisfaction rate: 36.4%

Average violation: 0.562494

Violation by elimination week:

Week 2: 0.181431

Week 3: 0.000000

Week 4: 0.000000

Week 6: 0.000000

Week 7: 0.977219

Week 7: 1.024781

Week 8: 0.000000

Week 9: 1.002893

Week 9: 0.999107

Week 10: 1.012281

Week 10: 0.989719

Top 5 estimated fan support (Week 1):

1. Nyle DiMarco : 12.4%

2. Ginger Zee : 12.4%

3. Antonio Brown : 11.9%

4. Paige VanZant : 11.5%

5. Wanya Morris : 10.9%

=== Consistency Analysis Detail ===

Week 2: Geraldo Rivera | ☒ Correct

Week 3: Mischa Barton | ☒ Correct

Week 4: Marla Maples | ☒ Correct

Week 6: Doug Flutie | ☒ Correct

Week 7: Kim Fields | ☒ Correct

Week 7: Von Miller | ☒ Predicted: Kim Fields

Week 8: Jodie Sweetin | ☒ Correct

Week 9: Antonio Brown | ☒ Predicted: Wanya Morris

Week 9: Wanya Morris | ☒ Correct
Week 10: Ginger Zee | ☒ Predicted: Paige VanZant
Week 10: Paige VanZant | ☒ Correct
Overall Consistency Accuracy: 72.7%

=== Certainty Analysis (Feasible Range Probe) ===
Average Certainty Score: 0.5153

[Certainty Analysis Summary]

Top 3 Most Certain Estimates (Highest Certainty Score):

Week	Contestant	Certainty
7	Kim Fields	1.0
9	Wanya Morris	1.0
7	Ginger Zee	1.0

Top 3 Least Certain Estimates (Lowest Certainty Score):

Week	Contestant	Certainty
2	Wanya Morris	0.005494
2	Paige VanZant	0.005911
2	Jodie Sweetin	0.014397

Full certainty report for Season 22 saved to 'season_22_certainty_analysis.csv'

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ANALYZING SEASON 23 (23/34)

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FINAL MODEL - SEASON 23

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Using 'PERCENT' method for season 23
Contestants: 13, Weeks: 11
Eliminations: 12
Phase 1: Global search...
Phase 2: Local refinement...
Optimization completed.
Success: True
Final objective: 13427573.728057

[Original Optimization Results]
Satisfaction rate: 41.7%

Average violation: 0.525080

Violation by elimination week:

Week 2: 0.646480

Week 3: 0.649477

Week 4: 1.001012

Week 4: 1.000988

Week 6: 0.000000

Week 7: 0.000000

Week 8: 0.000000

Week 9: 0.000000

Week 10: 0.000000

Week 11: 1.001000

Week 11: 1.001000

Week 11: 1.001000

Top 5 estimated fan support (Week 1):

1. Jana Kramer : 11.4%

2. Laurie Hernandez : 11.4%

3. Calvin Johnson Jr. : 10.6%

4. James Hinchcliffe : 10.4%

5. Terra Jole : 9.0%

=== Consistency Analysis Detail ===

Week 2: Jake T. Austin | ☒ Correct

Week 3: Rick Perry | ☒ Correct

Week 4: Babyface | ☒ Predicted: Vanilla Ice

Week 4: Vanilla Ice | ☒ Correct

Week 6: Amber Rose | ☒ Correct

Week 7: Maureen McCormick | ☒ Correct

Week 8: Ryan Lochte | ☒ Correct

Week 9: Marilu Henner | ☒ Correct

Week 10: Terra Jole | ☒ Correct

Week 11: Jana Kramer | ☒ Correct

Week 11: Calvin Johnson Jr. | ☒ Predicted: Jana Kramer

Week 11: James Hinchcliffe | ☒ Predicted: Jana Kramer

Overall Consistency Accuracy: 75.0%

=== Certainty Analysis (Feasible Range Probe) ===

Average Certainty Score: 0.5811

[Certainty Analysis Summary]

Top 3 Most Certain Estimates (Highest Certainty Score):

Week	Contestant	Certainty
11	Jana Kramer	1.0
4	Laurie Hernandez	1.0
4	Laurie Hernandez	1.0

Top 3 Least Certain Estimates (Lowest Certainty Score):

Week	Contestant	Certainty
3	Calvin Johnson Jr.	0.033300
3	Laurie Hernandez	0.035694
3	Terra Jole	0.037706

Full certainty report for Season 23 saved to 'season_23_certainty_analysis.csv'

```
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ANALYZING SEASON 24 (24/34)
=====
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```

```
=====
FINAL MODEL - SEASON 24
=====
Using 'PERCENT' method for season 24
Contestants: 12, Weeks: 10
Eliminations: 11
Phase 1: Global search...
Phase 2: Local refinement...
Optimization completed.
Success: True
Final objective: 10809434.837876
```

[Original Optimization Results]

Satisfaction rate: 36.4%
Average violation: 0.513059

Violation by elimination week:

Week 2: 0.562439
Week 3: 0.538609
Week 4: 0.538596
Week 5: 0.000000
Week 6: 0.000000
Week 7: 0.998855
Week 7: 1.003145
Week 8: 0.000000

Week 9: 0.000000
Week 10: 1.001476
Week 10: 1.000524

Top 5 estimated fan support (Week 1):

1. David Ross : 13.9%
2. Rashad Jennings : 12.8%
3. Normani : 11.9%
4. Simone Biles : 10.6%
5. Bonner Bolton : 9.7%

=== Consistency Analysis Detail ===

Week 2: Chris Kattan | ☒ Correct
Week 3: Charo | ☒ Correct
Week 4: Mr. T | ☒ Correct
Week 5: Erika Jayne | ☒ Correct
Week 6: Heather Morris | ☒ Correct
Week 7: Nick Viall | ☒ Correct
Week 7: Nancy Kerrigan | ☒ Predicted: Nick Viall
Week 8: Bonner Bolton | ☒ Correct
Week 9: Simone Biles | ☒ Correct
Week 10: David Ross | ☒ Predicted: Normani
Week 10: Normani | ☒ Correct
Overall Consistency Accuracy: 81.8%

=== Certainty Analysis (Feasible Range Probe) ===

Average Certainty Score: 0.4341

[Certainty Analysis Summary]

Top 3 Most Certain Estimates (Highest Certainty Score):

Week	Contestant	Certainty
7	Bonner Bolton	1.0
7	Simone Biles	1.0
10	Rashad Jennings	1.0

Top 3 Least Certain Estimates (Lowest Certainty Score):

Week	Contestant	Certainty
3	Heather Morris	0.021408
3	Nancy Kerrigan	0.023385
3	Normani	0.027273

Full certainty report for Season 24 saved to 'season_24_certainty_analysis.csv'

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ANALYZING SEASON 25 (25/34)

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FINAL MODEL - SEASON 25

=====

Using 'PERCENT' method for season 25

Contestants: 13, Weeks: 10

Eliminations: 12

Phase 1: Global search...

Phase 2: Local refinement...

Optimization completed.

Success: True

Final objective: 20425285.323836

[Original Optimization Results]

Satisfaction rate: 25.0%

Average violation: 0.678759

Violation by elimination week:

Week 2: 1.000837

Week 2: 1.001163

Week 4: 0.680509

Week 5: 0.457595

Week 6: 0.000000

Week 7: 1.002819

Week 7: 0.999181

Week 8: 0.000000

Week 9: 0.000000

Week 10: 1.001000

Week 10: 1.001003

Week 10: 1.001000

Top 5 estimated fan support (Week 1):

1. Jordan Fisher : 12.4%

2. Drew Scott : 11.2%

3. Frankie Muniz : 11.0%

4. Lindsey Stirling : 10.9%

5. Victoria Arlen : 8.4%

=== Consistency Analysis Detail ===

Week 2: Barbara Corcoran | ☒ Correct
 Week 2: Debbie Gibson | ☒ Predicted: Barbara Corcoran
 Week 4: Derek Fisher | ☒ Correct
 Week 5: Sasha Pieterse | ☒ Correct
 Week 6: Nick Lachey | ☒ Correct
 Week 7: Nikki Bella | ☒ Predicted: Vanessa Lachey
 Week 7: Vanessa Lachey | ☒ Correct
 Week 8: Terrell Owens | ☒ Correct
 Week 9: Victoria Arlen | ☒ Correct
 Week 10: Drew Scott | ☒ Predicted: Lindsey Stirling
 Week 10: Frankie Muniz | ☒ Predicted: Lindsey Stirling
 Week 10: Lindsey Stirling | ☒ Correct
 Overall Consistency Accuracy: 66.7%

=== Certainty Analysis (Feasible Range Probe) ===
 Average Certainty Score: 0.6158

[Certainty Analysis Summary]

Top 3 Most Certain Estimates (Highest Certainty Score):

Week	Contestant	Certainty
10	Drew Scott	1.0
10	Frankie Muniz	1.0
2	Lindsey Stirling	1.0

Top 3 Least Certain Estimates (Lowest Certainty Score):

Week	Contestant	Certainty
2	Debbie Gibson	0.045327
6	Lindsey Stirling	0.047965
6	Terrell Owens	0.049267

Full certainty report for Season 25 saved to 'season_25_certainty_analysis.csv'

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ANALYZING SEASON 26 (26/34)

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FINAL MODEL - SEASON 26

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Using 'PERCENT' method for season 26

Contestants: 10, Weeks: 4

Eliminations: 9
Phase 1: Global search...
Phase 2: Local refinement...
Optimization completed.
Success: True
Final objective: 25335083.658721

[Original Optimization Results]

Satisfaction rate: 0.0%
Average violation: 1.001000

Violation by elimination week:

Week 1: 1.001007
Week 1: 1.000993
Week 2: 1.001000
Week 2: 1.001000
Week 3: 1.001000
Week 3: 1.001000
Week 3: 1.001001
Week 4: 1.000998
Week 4: 1.001002

Top 5 estimated fan support (Week 1):

1. Adam Rippon : 18.0%
2. Josh Norman : 17.3%
3. Tonya Harding : 17.1%
4. Jennie Finch Daigle : 9.5%
5. Kareem Abdul-Jabbar : 7.4%

=== Consistency Analysis Detail ===

Week 1: Johnny Damon | ✗ Predicted: Jamie Anderson
Week 1: Jamie Anderson | ✓ Correct
Week 2: Kareem Abdul-Jabbar | ✓ Correct
Week 2: Arike Ogunbowale | ✗ Predicted: Kareem Abdul-Jabbar
Week 3: Jennie Finch Daigle | ✓ Correct
Week 3: Chris Mazdzer | ✗ Predicted: Jennie Finch Daigle
Week 3: Mirai Nagasu | ✗ Predicted: Jennie Finch Daigle
Week 4: Tonya Harding | ✓ Correct
Week 4: Josh Norman | ✗ Predicted: Tonya Harding
Overall Consistency Accuracy: 44.4%

=== Certainty Analysis (Feasible Range Probe) ===

Average Certainty Score: 0.7818

[Certainty Analysis Summary]

Top 3 Most Certain Estimates (Highest Certainty Score):

Week	Contestant	Certainty
1	Jamie Anderson	1.0
3	Tonya Harding	1.0
1	Johnny Damon	1.0

Top 3 Least Certain Estimates (Lowest Certainty Score):

Week	Contestant	Certainty
2	Arike Ogunbowale	0.074192
2	Mirai Nagasu	0.080082
2	Chris Mazdzer	0.083311

Full certainty report for Season 26 saved to 'season_26_certainty_analysis.csv'

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=====
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ANALYZING SEASON 27 (27/34)
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=====
FINAL MODEL - SEASON 27
=====
Using 'PERCENT' method for season 27
Contestants: 13, Weeks: 9
Eliminations: 12
Phase 1: Global search...
Phase 2: Local refinement...
Optimization completed.
Success: False
Final objective: 23837291.257791
```

[Original Optimization Results]

Satisfaction rate: 0.0%
Average violation: 0.743736

Violation by elimination week:

Week 1: 0.322536
Week 2: 0.563656
Week 3: 0.156397
Week 4: 0.636866
Week 6: 0.238380

Week 7: 0.999143
Week 7: 1.002857
Week 8: 1.000830
Week 8: 1.001170
Week 9: 1.001000
Week 9: 1.001000
Week 9: 1.001000

Top 5 estimated fan support (Week 1):

1. Bobby Bones : 12.1%
2. Alexis Ren : 11.4%
3. Milo Manheim : 10.8%
4. Evanna Lynch : 10.7%
5. Joe Amabile : 9.6%

=== Consistency Analysis Detail ===

Week 1: Nikki Glaser	<input checked="" type="checkbox"/> Correct
Week 2: Danelle Umstead	<input checked="" type="checkbox"/> Correct
Week 3: Nancy McKeon	<input checked="" type="checkbox"/> Correct
Week 4: Tinashe	<input checked="" type="checkbox"/> Correct
Week 6: Mary Lou Retton	<input checked="" type="checkbox"/> Correct
Week 7: DeMarcus Ware	<input checked="" type="checkbox"/> Correct
Week 7: John Schneider	<input checked="" type="checkbox"/> Predicted: DeMarcus Ware
Week 8: Joe Amabile	<input checked="" type="checkbox"/> Correct
Week 8: Juan Pablo Di Pace	<input checked="" type="checkbox"/> Predicted: Joe Amabile
Week 9: Alexis Ren	<input checked="" type="checkbox"/> Predicted: Evanna Lynch
Week 9: Evanna Lynch	<input checked="" type="checkbox"/> Correct
Week 9: Milo Manheim	<input checked="" type="checkbox"/> Predicted: Evanna Lynch

Overall Consistency Accuracy: 66.7%

=== Certainty Analysis (Feasible Range Probe) ===

Average Certainty Score: 0.6043

[Certainty Analysis Summary]

Top 3 Most Certain Estimates (Highest Certainty Score):

Week	Contestant	Certainty
9	Alexis Ren	1.0
8	Joe Amabile	1.0
7	Juan Pablo Di Pace	1.0

Top 3 Least Certain Estimates (Lowest Certainty Score):

Week	Contestant	Certainty
2	Joe Amabile	0.060298

1 Joe Amabile 0.062273
2 Juan Pablo Di Pace 0.121796

Full certainty report for Season 27 saved to 'season_27_certainty_analysis.csv'

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ANALYZING SEASON 28 (28/34)

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FINAL MODEL - SEASON 28

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Using 'RANK' method for season 28

Contestants: 12, Weeks: 11

Eliminations: 11

Phase 1: Global search...

Phase 2: Local refinement...

Optimization completed.

Success: True

Final

objective:

627477007534056507993718007219346638468669753713988409042665472.000000

[Original Optimization Results]

Satisfaction rate: 63.6%

Average violation: 6.821818

Violation by elimination week:

Week 2: 0.000000

Week 2: 16.010000

Week 4: 0.000000

Week 6: 27.010000

Week 7: 0.000000

Week 8: 0.000000

Week 9: 0.000000

Week 10: 0.000000

Week 11: 0.000000

Week 11: 16.010000

Week 11: 16.010000

Top 5 estimated fan support (Week 1):

1. Hannah Brown : 12.0%

2. Lauren Alaina : 11.7%

- 3. Sean Spicer : 10.6%
- 4. Kel Mitchell : 10.5%
- 5. Kate Flannery : 10.0%

=== Consistency Analysis Detail ===

Week 2: Ray Lewis | ☒ Correct
Week 2: Mary Wilson | ☒ Predicted: Ray Lewis
Week 4: Lamar Odom | ☒ Correct
Week 6: Sailor Brinkley-Cook | ☒ Predicted: Karamo Brown
Week 7: Karamo Brown | ☒ Correct
Week 8: Kate Flannery | ☒ Correct
Week 9: Sean Spicer | ☒ Correct
Week 10: James Van Der Beek | ☒ Correct
Week 11: Lauren Alaina | ☒ Correct
Week 11: Kel Mitchell | ☒ Predicted: Lauren Alaina
Week 11: Ally Brooke | ☒ Predicted: Lauren Alaina
Overall Consistency Accuracy: 63.6%

=== Certainty Analysis (Feasible Range Probe) ===

Average Certainty Score: 0.4777

[Certainty Analysis Summary]

Top 3 Most Certain Estimates (Highest Certainty Score):

Week	Contestant	Certainty
6	Ally Brooke	1.0
2	Lauren Alaina	1.0
2	Karamo Brown	1.0

Top 3 Least Certain Estimates (Lowest Certainty Score):

Week	Contestant	Certainty
4	Sailor Brinkley-Cook	0.0
10	Ally Brooke	0.0
10	Hannah Brown	0.0

Full certainty report for Season 28 saved to 'season_28_certainty_analysis.csv'

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ANALYZING SEASON 29 (29/34)

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FINAL MODEL - SEASON 29

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Using 'RANK' method for season 29

Contestants: 15, Weeks: 11

Eliminations: 14

Phase 1: Global search...

Phase 2: Local refinement...

Optimization completed.

Success: True

Final objective: 1863902773967031075344696272098091335680.000000

[Original Optimization Results]

Satisfaction rate: 57.1%

Average violation: 3.718571

Violation by elimination week:

Week 2: 0.000000

Week 3: 0.000000

Week 4: 0.000000

Week 5: 0.000000

Week 6: 0.000000

Week 7: 5.010000

Week 7: 5.010000

Week 8: 0.000000

Week 9: 0.000000

Week 10: 16.010000

Week 10: 0.000000

Week 11: 5.010000

Week 11: 16.010000

Week 11: 5.010000

Top 5 estimated fan support (Week 1):

1. Kaitlyn Bristowe : 11.5%

2. Justina Machado : 10.9%

3. Nelly : 10.5%

4. Skai Jackson : 10.5%

5. Johnny Weir : 9.6%

=== Consistency Analysis Detail ===

Week 2: Charles Oakley | ☒ Correct

Week 3: Carole Baskin | ☒ Correct

Week 4: Anne Heche | ☒ Correct

Week 5: Jesse Metcalfe | ☒ Correct

Week 6: Veron Davis | ☒ Correct

Week 7: Monica Aldama | ✗ Predicted: Jeannie Mai
 Week 7: Jeannie Mai | ✓ Correct
 Week 8: Chrishell Stause | ✓ Correct
 Week 9: AJ McLean | ✓ Correct
 Week 10: Skai Jackson | ✗ Predicted: Johnny Weir
 Week 10: Johnny Weir | ✓ Correct
 Week 11: Nelly | ✗ Predicted: Nev Schulman
 Week 11: Justina Machado | ✗ Predicted: Nev Schulman
 Week 11: Nev Schulman | ✓ Correct
 Overall Consistency Accuracy: 71.4%

=== Certainty Analysis (Feasible Range Probe) ===
 Average Certainty Score: 0.3187

[Certainty Analysis Summary]

Top 3 Most Certain Estimates (Highest Certainty Score):

Week	Contestant	Certainty
10	Nev Schulman	1.0
10	Kaitlyn Bristowe	1.0
7	Jeannie Mai	1.0

Top 3 Least Certain Estimates (Lowest Certainty Score):

Week	Contestant	Certainty
4	Johnny Weir	0.0
3	Johnny Weir	0.0
3	Nev Schulman	0.0

Full certainty report for Season 29 saved to 'season_29_certainty_analysis.csv'

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 ANALYZING SEASON 30 (30/34)
 =====
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=====
 FINAL MODEL - SEASON 30
 =====
 Using 'RANK' method for season 30
 Contestants: 15, Weeks: 10
 Eliminations: 14
 Phase 1: Global search...
 Phase 2: Local refinement...

Optimization completed.

Success: True

Final objective: 15139333893971740.000000

[Original Optimization Results]

Satisfaction rate: 28.6%

Average violation: 3.578571

Violation by elimination week:

Week 2: 0.000000

Week 3: 0.000000

Week 4: 5.010000

Week 4: 5.010000

Week 5: 5.010000

Week 6: 0.000000

Week 7: 0.000000

Week 8: 5.010000

Week 8: 5.010000

Week 9: 5.010000

Week 9: 5.010000

Week 10: 5.010000

Week 10: 5.010000

Week 10: 5.010000

Top 5 estimated fan support (Week 1):

1. Amanda Kloots : 10.5%

2. Cody Rigsby : 10.3%

3. Melora Hardin : 10.2%

4. Jimmie Allen : 9.4%

5. Iman Shumpert : 9.1%

=== Consistency Analysis Detail ===

Week 2: Martin Kove | ☒ Correct

Week 3: Christine Chiu | ☒ Correct

Week 4: Brian Austin Green | ☒ Predicted: Matt James

Week 4: Matt James | ☒ Correct

Week 5: Melanie C | ☒ Correct

Week 6: Kenya Moore | ☒ Correct

Week 7: Mike "The Miz" Mizanin | ☒ Correct

Week 8: Jimmie Allen | ☒ Predicted: JoJo Siwa

Week 8: Olivia Jade | ☒ Predicted: JoJo Siwa

Week 9: Melora Hardin | ☒ Predicted: Suni Lee

Week 9: Suni Lee | ☒ Correct

Week 10: Cody Rigsby | ☒ Predicted: JoJo Siwa

Week 10: Amanda Kloots | ✖ Predicted: JoJo Siwa
Week 10: JoJo Siwa | ✔ Correct
Overall Consistency Accuracy: 57.1%

=== Certainty Analysis (Feasible Range Probe) ===
Average Certainty Score: 0.5065

[Certainty Analysis Summary]

Top 3 Most Certain Estimates (Highest Certainty Score):

Week	Contestant	Certainty
8	Amanda Kloots	1.0
8	Melora Hardin	1.0
8	JoJo Siwa	1.0

Top 3 Least Certain Estimates (Lowest Certainty Score):

Week	Contestant	Certainty
7	JoJo Siwa	0.0
6	Jimmie Allen	0.0
6	Cody Rigsby	0.0

Full certainty report for Season 30 saved to 'season_30_certainty_analysis.csv'

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ANALYZING SEASON 31 (31/34)

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FINAL MODEL - SEASON 31

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Using 'RANK' method for season 31
Contestants: 16, Weeks: 10
Eliminations: 15
Phase 1: Global search...
Phase 2: Local refinement...
Optimization completed.
Success: True
Final objective: 2329878467458788768623006614208290750464.000000

[Original Optimization Results]
Satisfaction rate: 33.3%
Average violation: 4.806667

Violation by elimination week:

Week 1: 0.000000
Week 2: 0.000000
Week 3: 0.000000
Week 4: 0.000000
Week 5: 5.010000
Week 5: 16.010000
Week 6: 0.000000
Week 7: 5.010000
Week 8: 5.010000
Week 8: 5.010000
Week 9: 5.010000
Week 9: 5.010000
Week 10: 5.010000
Week 10: 16.010000
Week 10: 5.010000

Top 5 estimated fan support (Week 1):

1. Shangela : 9.1%
2. Wayne Brady : 8.9%
3. Daniel Durant : 8.5%
4. Heidi D'Amelio : 8.3%
5. Trevor Donovan : 8.1%

=== Consistency Analysis Detail ===

Week 1: Jason Lewis | ☒ Correct
Week 2: Teresa Giudice | ☒ Correct
Week 3: Cheryl Ladd | ☒ Correct
Week 4: Sam Champion | ☒ Correct
Week 5: Joseph Baena | ☒ Predicted: Jessie James Decker
Week 5: Selma Blair | ☒ Predicted: Jessie James Decker
Week 6: Jessie James Decker | ☒ Correct
Week 7: Jordin Sparks | ☒ Predicted: Gabby Windey
Week 8: Vinny Guadagnino | ☒ Predicted: Heidi D'Amelio
Week 8: Heidi D'Amelio | ☒ Correct
Week 9: Trevor Donovan | ☒ Predicted: Daniel Durant
Week 9: Daniel Durant | ☒ Correct
Week 10: Wayne Brady | ☒ Predicted: Gabby Windey
Week 10: Shangela | ☒ Predicted: Gabby Windey
Week 10: Gabby Windey | ☒ Correct
Overall Consistency Accuracy: 53.3%

=== Certainty Analysis (Feasible Range Probe) ===

Average Certainty Score: 0.4826

[Certainty Analysis Summary]

Top 3 Most Certain Estimates (Highest Certainty Score):

Week	Contestant	Certainty
5	Selma Blair	1.0
5	Daniel Durant	1.0
7	Wayne Brady	1.0

Top 3 Least Certain Estimates (Lowest Certainty Score):

Week	Contestant	Certainty
4	Charli D'Amelio	0.0
4	Wayne Brady	0.0
4	Jessie James Decker	0.0

Full certainty report for Season 31 saved to 'season_31_certainty_analysis.csv'

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ANALYZING SEASON 32 (32/34)
=====
=
```

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=====
FINAL MODEL - SEASON 32
=====
```

Using 'RANK' method for season 32

Contestants: 14, Weeks: 11

Eliminations: 13

Phase 1: Global search...

Phase 2: Local refinement...

Optimization completed.

Success: True

Final objective:

761936366291354494249251032304621610516066923737858654722850816.000000

[Original Optimization Results]

Satisfaction rate: 46.2%

Average violation: 7.774615

Violation by elimination week:

Week 1: 0.000000

Week 2: 0.000000

Week 3: 0.000000
Week 4: 0.000000
Week 5: 0.000000
Week 6: 16.010000
Week 7: 16.010000
Week 8: 27.010000
Week 9: 0.000000
Week 11: 5.010000
Week 11: 5.010000
Week 11: 16.010000
Week 11: 16.010000

Top 5 estimated fan support (Week 1):

- | | | |
|--------------------|---|-------|
| 1. Alyson Hannigan | : | 11.9% |
| 2. Ariana Madix | : | 11.8% |
| 3. Charity Lawson | : | 11.1% |
| 4. Harry Jowsey | : | 10.0% |
| 5. Barry Williams | : | 9.0% |

=== Consistency Analysis Detail ===

Week 1: Matt Walsh		<input checked="" type="checkbox"/> Correct
Week 2: Jamie Lynn Spears		<input checked="" type="checkbox"/> Correct
Week 3: Tyson Beckford		<input checked="" type="checkbox"/> Correct
Week 4: Adrian Peterson		<input checked="" type="checkbox"/> Correct
Week 5: Mira Sorvino		<input checked="" type="checkbox"/> Correct
Week 6: Mauricio Umansky		<input checked="" type="checkbox"/> Predicted: Lele Pons
Week 7: Lele Pons		<input checked="" type="checkbox"/> Predicted: Barry Williams
Week 8: Barry Williams		<input checked="" type="checkbox"/> Predicted: Jason Mraz
Week 9: Harry Jowsey		<input checked="" type="checkbox"/> Correct
Week 11: Alyson Hannigan		<input checked="" type="checkbox"/> Predicted: Xochitl Gomez
Week 11: Charity Lawson		<input checked="" type="checkbox"/> Predicted: Xochitl Gomez
Week 11: Ariana Madix		<input checked="" type="checkbox"/> Predicted: Xochitl Gomez
Week 11: Jason Mraz		<input checked="" type="checkbox"/> Predicted: Xochitl Gomez

Overall Consistency Accuracy: 46.2%

=== Certainty Analysis (Feasible Range Probe) ===

Average Certainty Score: 0.4815

[Certainty Analysis Summary]

Top 3 Most Certain Estimates (Highest Certainty Score):

Week	Contestant	Certainty
11	Ariana Madix	1.0
6	Ariana Madix	1.0

11 Jason Mraz 1.0

Top 3 Least Certain Estimates (Lowest Certainty Score):

Week	Contestant	Certainty
1	Jamie Lynn Spears	0.0
3	Barry Williams	0.0
3	Alyson Hannigan	0.0

Full certainty report for Season 32 saved to 'season_32_certainty_analysis.csv'

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ANALYZING SEASON 33 (33/34)
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=====
FINAL MODEL - SEASON 33
=====
Using 'RANK' method for season 33
Contestants: 13, Weeks: 9
Eliminations: 12
Phase 1: Global search...
Phase 2: Local refinement...
Optimization completed.
Success: True
Final objective: 10900320403659654.000000
```

[Original Optimization Results]

Satisfaction rate: 33.3%
Average violation: 3.340000

Violation by elimination week:

Week 2: 5.010000
Week 2: 5.010000
Week 3: 5.010000
Week 3: 5.010000
Week 4: 0.000000
Week 5: 0.000000
Week 6: 0.000000
Week 7: 0.000000
Week 9: 5.010000
Week 9: 5.010000
Week 9: 5.010000

Week 9: 5.010000

Top 5 estimated fan support (Week 1):

1. Danny Amendola : 11.5%
2. Ilona Maher : 11.2%
3. Joey Graziadei : 11.2%
4. Stephen Nedoroscik : 11.1%
5. Reginald VelJohnson : 10.1%

=== Consistency Analysis Detail ===

Week 2: Anna Delvey		✗ Predicted: Brooks Nader
Week 2: Tori Spelling		✗ Predicted: Brooks Nader
Week 3: Reginald VelJohnson		✗ Predicted: Brooks Nader
Week 3: Eric Roberts		✗ Predicted: Brooks Nader
Week 4: Brooks Nader		✓ Correct
Week 5: Phaedra Parks		✓ Correct
Week 6: Jenn Tran		✓ Correct
Week 7: Dwight Howard		✓ Correct
Week 9: Danny Amendola		✗ Predicted: Chandler Kinney
Week 9: Ilona Maher		✗ Predicted: Chandler Kinney
Week 9: Stephen Nedoroscik		✗ Predicted: Chandler Kinney
Week 9: Chandler Kinney		✓ Correct

Overall Consistency Accuracy: 41.7%

=== Certainty Analysis (Feasible Range Probe) ===

Average Certainty Score: 0.7417

[Certainty Analysis Summary]

Top 3 Most Certain Estimates (Highest Certainty Score):

Week	Contestant	Certainty
2	Tori Spelling	1.0
3	Ilona Maher	1.0
3	Jenn Tran	1.0

Top 3 Least Certain Estimates (Lowest Certainty Score):

Week	Contestant	Certainty
7	Joey Graziadei	0.0
7	Stephen Nedoroscik	0.0
7	Chandler Kinney	0.0

Full certainty report for Season 33 saved to 'season_33_certainty_analysis.csv'

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ANALYZING SEASON 34 (34/34)

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FINAL MODEL - SEASON 34

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Using 'RANK' method for season 34

Contestants: 14, Weeks: 11

Eliminations: 13

Phase 1: Global search...

Phase 2: Local refinement...

Optimization completed.

Success: True

Final objective: 9007903666913196.000000

[Original Optimization Results]

Satisfaction rate: 46.2%

Average violation: 2.697692

Violation by elimination week:

Week 2: 5.010000

Week 2: 5.010000

Week 3: 0.000000

Week 4: 0.000000

Week 6: 0.000000

Week 7: 0.000000

Week 8: 0.000000

Week 9: 0.000000

Week 10: 5.010000

Week 11: 5.010000

Week 11: 5.010000

Week 11: 5.010000

Week 11: 5.010000

Top 5 estimated fan support (Week 1):

1. Elaine Hendrix : 10.8%

2. Robert Irwin : 10.7%

3. Dylan Efron : 9.6%

4. Andy Richter : 9.4%

5. Danielle Fishel : 7.9%

=== Consistency Analysis Detail ===

Week 2: Corey Feldman | ✗ Predicted: Baron Davis
 Week 2: Baron Davis | ✓ Correct
 Week 3: Lauren Jauregui | ✓ Correct
 Week 4: Hilaria Baldwin | ✓ Correct
 Week 6: Scott Hoying | ✓ Correct
 Week 7: Jen Affleck | ✓ Correct
 Week 8: Danielle Fishel | ✓ Correct
 Week 9: Andy Richter | ✓ Correct
 Week 10: Whitney Leavitt | ✓ Correct
 Week 11: Elaine Hendrix | ✗ Predicted: Alix Earle
 Week 11: Dylan Efron | ✗ Predicted: Alix Earle
 Week 11: Jordan Chiles | ✗ Predicted: Alix Earle
 Week 11: Alix Earle | ✓ Correct
 Overall Consistency Accuracy: 69.2%

=== Certainty Analysis (Feasible Range Probe) ===
 Average Certainty Score: 0.4702

[Certainty Analysis Summary]

Top 3 Most Certain Estimates (Highest Certainty Score):

Week	Contestant	Certainty
2	Corey Feldman	1.0
2	Danielle Fishel	1.0
11	Jordan Chiles	1.0

Top 3 Least Certain Estimates (Lowest Certainty Score):

Week	Contestant	Certainty
7	Dylan Efron	0.042654
6	Elaine Hendrix	0.043029
4	Elaine Hendrix	0.043263

Full certainty report for Season 34 saved to 'season_34_certainty_analysis.csv'

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FINAL SUMMARY - ALL 34 SEASONS

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Season	Satisfaction	Avg Viol	Max Viol
1	80.0	% 1.002000	5.010000
2	77.8	% 1.113333	5.010000
3	80.0	% 0.200200	1.001000

4	80.0	% 0.200200	1.001001
5	36.4	% 0.348099	1.004079
6	63.6	% 0.364000	1.001001
7	50.0	% 0.500500	1.001001
8	66.7	% 0.333667	1.011079
9	33.3	% 0.667333	1.001026
10	80.0	% 0.200200	1.001002
11	72.7	% 0.204551	1.002155
12	80.0	% 0.200200	1.001004
13	81.8	% 0.182000	1.001001
14	63.6	% 0.364000	1.001114
15	33.3	% 0.667341	1.111691
16	72.7	% 0.273010	1.001112
17	63.6	% 0.321454	1.001000
18	54.5	% 0.455000	1.001017
19	33.3	% 0.462919	1.013629
20	18.2	% 0.586392	1.033874
21	33.3	% 0.671935	1.056207
22	36.4	% 0.562494	1.024781
23	41.7	% 0.525080	1.001012
24	36.4	% 0.513059	1.003145
25	25.0	% 0.678759	1.002819
26	0.0	% 1.001000	1.001007
27	0.0	% 0.743736	1.002857
28	63.6	% 6.821818	27.010000
29	57.1	% 3.718571	16.010000
30	28.6	% 3.578571	5.010000
31	33.3	% 4.806667	16.010000
32	46.2	% 7.774615	27.010000
33	33.3	% 3.340000	5.010000
34	46.2	% 2.697692	5.010000

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AVERAGE  50.1      % 1.355306      4.010900
MEDIAN    48.1      %

```

Results saved to fan_vote_results.csv

进程已结束，退出代码为 0