

**The quota at each round is the total number of valid votes in that round, divided by 3, rounded up.**

**FIRST ROUND:**

Candidate	Votes
Emma Byrne	85
Felix Cohen	14
Terence Eden	34
Neil McGovern	50
Christi Scarborough	14
RON	0
Spoiled	1
Total	198

Quota =  $198/3 + e = 66$ . Emma received 85 of first preference votes so takes a seat in the 1<sup>st</sup> round.

**Distribution of Emma's surplus votes:**

Emma has more votes than are needed to reach quota (19 more) so we need to redistribute Emma's surplus votes proportionately. To do this we make another table showing A's second preferences.

<b>Distribution of second choices for A</b>	
Candidate	Votes
Felix Cohen	7
Terence Eden	34
Neil McGovern	20
Christi Scarborough	21
RON	1
Spoiled	2

Emma will only be allowed to keep 66 (the quota we worked out earlier) of her votes, the remaining 19 will be distributed, so we calculate a “keep value” (the proportion of votes kept) and a “distribute value” (the proportion of votes passed on).

Keep value =  $66/85 = 0.78$   
so Distributed =  $1 - \text{Keep} = 0.22$

Using the distribute value of 0.22 we can then work out how many votes to pass on.

<b>Distribution of second choices for A</b>		
Candidate	Votes	x 0.22
Felix Cohen	7	1.54
Terence Eden	34	7.48
Neil McGovern	20	4.4
Christi Scarborough	21	4.62
RON	1	0.22
Spoiled	2	0.44

Candidate	1 <sup>st</sup> round	Distr.	
		From Emma	End
Emma Byrne	85		
Felix Cohen	14	1.54	15.54
Terence Eden	34	7.48	41.48
Neil McGovern	50	4.4	54.4
Christi Scarborough	14	4.62	18.62
RON	0	0.22	0.22
Spoiled	1	0.44	1.44

Quota = 65.2. No-one else has reached the quota, so we eliminate the lowest placed candidates, in this case Felix Cohen, who's votes will be redistributed.

## SECOND ROUND

Candidate	1 <sup>st</sup> round	From Emma	End	2 <sup>nd</sup> round
Emma Byrne	85			7
Felix Cohen	14	1.54	15.54	(14)
Terence Eden	34	7.48	41.48	2
Neil McGovern	50	4.4	54.4	3
Christi Scarborough	14	4.62	18.62	1
RON	0	0.22	0.22	0
Spoiled	1	0.44	1.44	1

Emma will only be allowed to keep her quota, the remaining 26.8 of which we redistribute.

Keep value =  $64.2/91 = 0.71$

so Distribute =  $1 - \text{Keep} = 0.29$

<b>Distribution of second choices for Emma</b>		
Candidate	Votes	x 0.29
Terence Eden	38	11.02
Neil McGovern	23	6.67
Christi Scarborough	25	7.25
RON	1	0.29
Spoiled	5	1.45

Candidate	1 <sup>st</sup> round			2 <sup>nd</sup> round		
		From Emma	End		From Emma	End
Emma Byrne	85			7		
Felix Cohen	14	1.54	15.54	(14)		
Terence Eden	34	7.48	41.48	2	3.54	47.02
Neil McGovern	50	4.4	54.4	3	2.27	59.67
Christi Scarborough	14	4.62	18.62	1	2.63	22.25
RON	0	0.22	0.22	0	0.07	0.29
Spoiled	1	0.44	1.44	1	1.01	3.45

Quota was 65.2, which no-one's achieved, so we eliminate Christi.

**THIRD ROUND**

Candidate	1 <sup>st</sup> round		2 <sup>nd</sup> round			3 <sup>rd</sup> round		Final
		From Emma	End		From Emma	End		
Emma Byrne	85			7			3	
Felix Cohen	14	1.54	15.54	(14)				
Terence Eden	34	7.48	41.48	2	3.54	47.02	1	48.02
Neil McGovern	50	4.4	54.4	3	2.27	59.67	6	65.67
Christi Scarborough	14	4.62	18.62	1	2.63	22.25		
RON	0	0.22	0.22	0	0.07	0.29		0.29
Spoiled	1	0.44	1.44	1	1.01	3.45	1	4.45

With quota of 64.9, Neil McGovern gets the second seat.