

Elections and voting

The Additional Member System

Hi! Let me explain what it is...

The Additional Member System is a form of proportional representation which aims to make the results of an election reflect more closely the amount of votes cast for each party or individual.

The Additional Member System combines First Past the Post in constituencies and a regional system which elects 56 additional members to the Parliament.

Let me explain

At a Scottish Parliament election, each voter has two votes

One is your Constituency Vote the other is your Regional vote.

This vote (illustration of a constituency ballot paper) is used to elect the local constituency MSP.

The constituency vote is counted and the person with the most votes wins. This is known as First Past the Post.

You use your second vote (illustration of a regional ballot paper) to choose a political party, or a candidate standing as an individual, within a larger electoral area known as a region.

The region is made up of several constituencies.

The regional votes are counted.

Regional seats are decided using the D'Hondt Formula

The D'Hondt Formula - how does it work?

Regional seats are decided using the D'Hondt Formula (Victor D'Hondt was a Belgian mathematician)

Regional Votes \div Number of MSPs already won in region + 1

The Party or person with the largest number after this formula is applied wins the round and wins one regional MSP.

This formula will be used 7 times in 7 rounds to elect 7 regional MSPs.

With me so far...let's go to round 1

Let's take an example of a region

Our region is called "Anywhere". It is made up of 9 constituencies.

Voters could choose between six political parties; the Pink Party, the Spotty Party, the Black Party, the Striped Party, the Purple Party and the White Party

The Pink Party won 8 of these constituencies and the Black Party won the other.

Let's look at the numbers we're using and where they come from...

Round 1

$$\text{Pink} - 99,000 \div (8+1) = 11,000$$

$$\text{Spotty} - 85,000 \div (0+1) = 85,000$$

$$\text{Black} - 47,500 \div (1+1) = 23,750$$

$$\text{Striped} - 52,000 \div (0+1) = 52,000$$

$$\text{Purple} - 23,000 \div (0+1) = 23,000$$

$$\text{White} - 5,250 \div (0+1) = 5,250$$

In the regional vote, the Pink Party got 99,000 votes. It gained 8 constituency MSPs in the area that makes the region. One is added to 8 to make the divisor for the Pink Party. The D'Hondt formula for the Pink Party for round 1 is $99,000 \div (8+1)$. Their result for round 1 is 11,000.

The Spotty Party got 85,000 votes in the regional ballot. They didn't win any of the 9 constituencies in the region so the D'Hondt formula for them is $85,000 \div (0+1)$. Their result for round 1 is 85,000

The Black Party has 47,500 votes from the regional ballot and they won 1 constituency in the region. The formula for the Black Party is $47,500 \div (1+1)$. Their result for round 1 is 23,750

The Striped, Purple and White Parties got 52,000, 23,000 and 5,250 votes. None of these parties won a constituency in the region, so their regional votes are divided by $0+1$, giving them 52,000, 23,000 and 5,250.

So the result from round 1 is...

The **Spotty Party** has the largest number after the D'Hondt formula has been applied, so this Party gets 1 of the regional MSPs.

This formula would be used 7 times in 7 rounds to elect 7 regional MSPs.

Let's recap: the D'Hondt formula is the number of regional votes divided by the number of MSPs the party has in the region + 1.

In Round 2, the Spotty Party's divisor will change as they won an MSP in Round 1.

So, let's move on to Round 2

In round 2, the same formula is applied, but the Spotty Party divisor changes

Round 2

$$\text{Pink} - 99,000 \div (8+1) = 11,000$$

$$\text{Spotty} - 85,000 \div (1+1) = 42,500$$

$$\text{Black} - 47,500 \div (1+1) = 23,750$$

$$\text{Striped} - 52,000 \div (0+1) = 52,000$$

$$\text{Purple} - 23,000 \div (0+1) = 23,000$$

$$\text{White} - 5,250 \div (0+1) = 5,250$$

Striped Wins

So, let's move on to Round 3

In Round 3, the same formula is applied again, this time however the Striped Party divisor changes.

Round 3

$$\text{Pink} - 99,000 \div (8+1) = 11,000$$

$$\text{Spotty} - 85,000 \div (1+1) = 42,500$$

$$\text{Black} - 47,500 \div (1+1) = 23,750$$

$$\text{Striped} - 52,000 \div (1+1) = 26,000$$

$$\text{Purple} - 23,000 \div (0+1) = 23,000$$

$$\text{White} - 5,250 \div (0+1) = 5,250$$

Spotty Wins

So, let's move on to Round 4

In Round 4, the same formula is applied again, this time however the Spotty Party divisor changes.

Round 4

$$\text{Pink} - 99,000 \div (8+1) = 11,000$$

$$\text{Spotty} - 85,000 \div (2+1) = 28,333$$

$$\text{Black} - 47,500 \div (1+1) = 23,750$$

$$\text{Striped} - 52,000 \div (1+1) = 26,000$$

$$\text{Purple} - 23,000 \div (0+1) = 23,000$$

$$\text{White} - 5,250 \div (0+1) = 5,250$$

Spotty Wins

So, let's move on to Round 5

In Round 5, the Spotty party divisor changes again

Round 5

$$\text{Pink} - 99,000 \div (8+1) = 11,000$$

$$\text{Spotty} - 85,000 \div (3+1) = 21,250$$

$$\text{Black} - 47,500 \div (1+1) = 23,750$$

$$\text{Striped} - 52,000 \div (1+1) = 26,000$$

$$\text{Purple} - 23,000 \div (0+1) = 23,000$$

$$\text{White} - 5,250 \div (0+1) = 5,250$$

Striped Wins

So, let's move on to Round 6

In Round 6, the Striped Party divisor changes.

Round 6

$$\text{Pink} - 99,000 \div (8+1) = 11,000$$

$$\text{Spotty} - 85,000 \div (3+1) = 21,250$$

$$\text{Black} - 47,500 \div (1+1) = 23,750$$

$$\text{Striped} - 52,000 \div (2+1) = 17,333$$

$$\text{Purple} - 23,000 \div (0+1) = 23,000$$

$$\text{White} - 5,250 \div (0+1) = 5,250$$

Black Wins

So, let's move on to Round 7

In Round 7, the Black Party divisor changes.

Round 7

$$\text{Pink} - 99,000 \div (8+1) = 11,000$$

$$\text{Spotty} - 85,000 \div (3+1) = 21,250$$

$$\text{Black} - 47,500 \div (2+1) = 15,833$$

$$\text{Striped} - 52,000 \div (2+1) = 17,333$$

$$\text{Purple} - 23,000 \div (0+1) = 23,000$$

$$\text{White} - 5,250 \div (0+1) = 5,250$$

Purple Wins

So after all 7 rounds this is how the figures stack up

Regional Vote Totals		Regional MSPs
Pink	99,000	0
Spotty	85,000	3
Black	47,500	1
Striped	52,000	2
Purple	23,000	1
White	5,250	0

So after all 7 rounds this is how the figures stack up...

Additional Member System Totals

Party	Constituency MSPs	Regional MSPs	Total	Constituency Votes		Regional Votes		Total Votes
Pink	8	0	8	133,600	+	99,000	=	232,600
Spotty	0	3	3	89,300	+	85,000	=	174,300
Black	1	1	2	52,000	+	47,500	=	99,500
Striped	0	2	2	53,000	+	52,000	=	105,000
Purple	0	1	1	0	+	23,000	=	23,000
White	0	0	0	2,430	+	5,250	=	7,680

So, now you know how the Additional Member System works.

Here's a couple of questions for you

Question one

Do you think the Additional Member System makes the number of MSPs each party gets more proportional to the number of votes cast?

Yes No

Discuss your answer with your friends and classmates. Remember to have evidence to back up your argument.

Question two

Do you think the Additional Member System gives more power to the voter?

Yes No

Discuss your answer with your friends and classmates. Remember to have evidence to back up your argument.

The Additional Member System - Want to know more, please contact us...

Teacher Notes:

When looking at the overall results table, you will notice that the Purple party did not receive any constituency votes. This is because they did not put forward any candidates in constituencies. The Scottish Green Party has done this in previous elections.

Some questions to consider:

Do you think the Additional Member System makes the number of MSPs each party gets more proportional to the number of votes cast?

Does this show the system to be more proportional?

Do you think the Additional Member System gives more power to the voter?

Which party gains the most out of the additional member system?

Which party would be most happy with the additional member system?

Which party do you think would be least happy with the additional member system?

The table below shows the share of the vote that each party received in the constituencies, region and in both together. Using this table could prompt further discussion about the additional member system and how proportional it is, which parties could benefit the most from the system, and which might feel they were losing out.

Percentage Share of the Vote and MSPs by constituency, region and totals

	% of constituency vote	% of constituency MSPs	% of regional vote	% of regional MSPs	% of total votes	% of total MSPs
Pink	40%	89%	32%	0	36%	50%
Spotty	27%	0	27%	42%	27%	18.75
Black	16%	11%	15%	14%	15%	12.5%
Striped	16%	0	17%	28%	16%	12.5%
Purple	-	-	7.3%	14%	3.6%	6.25%
White	0.74%	0	1.7%	0	1.2%	0