Reading: Friedland 09 (Bornhuetter-Ferguson Method)
Model: BF Method
Problem Type: Reserving Methods - Simple Example of BF

Find Calculate the unpaid for AY 2024 using the Bornhuetter-Ferguson method.

Given All data is as of Dec 31, 2025

EP for CY	2024	600
ECR for AY	2024	70%
EP for CY	2025	1,800
ECR for AY	2025	86%

paid loss @	12 mths	220
reported loss @	12 mths	420
reported CDF for	12-ult	1.80
paid loss @	24 mths	320
reported loss @	24 mths	630
reported CDF for	24-ult	1.40

Step 1	ECR ultimate	=	ECR	x	EP	
		=	70%	x	600	
		=	420			

Step 2a The CDF we need is: 1.40 *(reported CDF for 24 mths)*

Step 2b reported BF ultimate

=	rptd loss @ 24 mths	+	(1 - 1/CDF)	x	ECR ultimate
=	630	+	0.2857	x	420
=	750				

Final Answer: unpaid for AY 2024 = 430

Recall:

unpaid	=	ultimate	-	paid
IBNR	=	reported	-	paid

Reading: Friedland 09 (Bornhuetter-Ferguson Method)
Model: BF Method
Problem Type: Reserving Methods - Simple Example of BF

Find Calculate the ultimate for AY 2025 using the Bornhuetter-Ferguson method.

Given All data is as of Dec 31, 2025

EP for CY	2024	1,900
ECR for AY	2024	64%
EP for CY	2025	1,400
ECR for AY	2025	67%

paid loss @	12 mths	770
reported loss @	12 mths	1,290
reported CDF for	12-ult	1.10
paid loss @	24 mths	1,810
reported loss @	24 mths	2,260
reported CDF for	24-ult	1.00

Step 1	ECR ultimate	=	ECR	x	EP	
		=	67%	x	1,400	
		=	938			

Step 2a The CDF we need is: 1.10 *(reported CDF for 12-ult)*

Step 2b reported BF ultimate

=	rptd loss @ 12 mths	+	(1 - 1/CDF)	x	ECR ultimate	
=	1,290	+	0.0909	x	938	
=	1,375					

Final Answer: ultimate for AY 2025 = 1,375

Recall:

unpaid	=	ultimate	-	paid
IBNR	=	reported	-	paid

Reading: Friedland 09 (Bornhuetter-Ferguson Method)
Model: BF Method
Problem Type: Reserving Methods - Simple Example of BF

Find Calculate the IBNR for AY 2024 using the Bornhuetter-Ferguson method.

Given All data is as of Dec 31, 2025

EP for CY	2024	1,100
ECR for AY	2024	83%
EP for CY	2025	1,300
ECR for AY	2025	81%

paid loss @	12 mths	530
reported loss @	12 mths	990
paid CDF for	12-ult	1.30
paid loss @	24 mths	1,080
reported loss @	24 mths	1,660
paid CDF for	24-ult	1.00

Step 1	ECR ultimate	=	ECR	x	EP			
		=	83%	x	1,100			
		=	913					

Step 2a The CDF we need is: 1.00 *(paid CDF for 24 mths)*

Step 2b paid BF ultimate

=	paid loss @ 24 mths	+	(1 - 1/CDF)	x	ECR ultimate	
=	1,080	+	0.0000	x	913	
=	1,080					

Final Answer: IBNR for AY 2024 = -580

Recall:

unpaid	=	ultimate	-	paid
IBNR	=	reported	-	paid

Reading: Friedland 09 (Bornhuetter-Ferguson Method)
Model: BF Method
Problem Type: Reserving Methods - Simple Example of BF

Find Calculate the unpaid for AY 2025 using the Bornhuetter-Ferguson method.

Given All data is as of Dec 31, 2025

EP for CY	2024	700
ECR for AY	2024	88%
EP for CY	2025	700
ECR for AY	2025	86%

paid loss @	12 mths	430
reported loss @	12 mths	650
paid CDF for	12-ult	3.00
paid loss @	24 mths	760
reported loss @	24 mths	1,140
paid CDF for	24-ult	2.60

Step 1	ECR ultimate	=	ECR	x	EP	
		=	86%	x	700	
		=	602			

Step 2a The CDF we need is: 3.00 *(paid CDF for 12-ult)*

Step 2b paid BF ultimate

=	paid loss @ 12 mths	+	(1 - 1/CDF)	x	ECR ultimate
=	430	+	0.6667	x	602
=	831				

Final Answer: unpaid for AY 2025 = 401

Recall:

unpaid	=	ultimate	-	paid
IBNR	=	reported	-	paid