Given

An insured is subject to experience rating under the National Council on Compensation Insurance (NCCI)'s Experience Rating Plan Manual for Workers' Compensation and Employers Liability Insurance. The following information about the insured is given:

Payroll (Experience Period)	$5,000,000
State	AL
Class	7705

The following claims apply to the experience period. Each claim involves only one person, and none are disease claims:

Claim Number	Type	Loss
1	Indemnity	$29,000
2	Medical	$30,500
3	Indemnity	$90,000
4	Indemnity	$1,500
5	Medical	$45,000

Find

Calculate the experience modification. You may use the information provided below.

Class Code	ELR	D Ratio
7705	2.02	0.17
7710	1.41	0.13

AL Primary/Excess Split Point
$5,250

Expected Losses	Weighting Value
92,134 – 106,385	0.14
106,386 – 120,906	0.15

Expected Losses	Ballast Value
95,999 – 128,908	28,000
128,909 – 162,618	31,500

G	7
State Per Claim Accident Limit	$175,500
State Multiple Claim Accident Limit	$351,000

Solution

Using the first table provided we can look up the ELR and discount ratio for the risk. It's implicit this is an intrastate risk for Alabama.

ELR: 2.02
Discount Ratio: 0.17

Next, we need the expected losses. Find this by multiplying the ELR by the payroll divided by 100.

Expected Loss = 2.02 * $5,000,000 / $100
= $101,000   <= **Expected Loss, E**

Using the discount ratio we can split this into the expected primary and expected excess losses.

Expected Primary Loss = Discount Ratio * Expected Loss
= $17,170 <= E_p

Expected Excess Loss = Expected Loss - Expected Primary Loss
= $83,830 <= E_e

Now we can look up the weighting value and ballast value based on the expected loss.

Weighting Value = 0.14   <= **W**
Ballast Value = 28,000   <= **B**

All that remains now is to calculate the actual primary and actual excess losses subject to the state accident limits.
Since each claim only involves one person, the state multiple claim accident limit doesn't apply.
Since no claims are over the state per claim accident limit, no individual loss capping is required either.

Claim Number	Type	Loss	(1) Primary Loss	(2) Excess Loss	Notes:
1	Indemnity	29,000	5,250	23,750	(1) = min($5,250; Loss). The result is reduced by 70% if Loss Type = Medical
2	Medical	30,500	1,575	7,575	(2) = Loss - (1), if Loss Type = Medical then Loss is reduced by 70%
3	Indemnity	90,000	5,250	84,750	
4	Indemnity	1,500	1,500	0	
5	Medical	45,000	1,575	11,925	
Total		A_p =>	15,150	128,000	<= A_e

Now apply the experience modification formula:

$$\text{Experience Modification} = \frac{A_p + (1 - W) \cdot E_e + B + W \cdot A_e}{E_p + (1 - W) \cdot E_e + B + W \cdot E_e}$$

Experience Mod =   (15,150 + (1 - 0.14)*83,830 + 28,000 + 0.14*128,000) / (17,170 + (1 - 0.14)*83,830 + 28,000 + 0.14*83,830)
= 1.03   <= **Note rounded to 2 decimal places**

Now check the maximum debit criteria:

$$\text{Max. Debit Mod} = 1.10 + 0.0004 \cdot \left(\frac{\text{Expected Loss}}{G} \right)$$

Max Debit Mod =   1.10 + 0.0004 * 101,000 / 7)
= 6.87

Experience Mod =   min(1.03,6.87)
= 1.03   <= **Final answer**