14. (2 points)

Given the following:

Home Value	$300,000
Insured Value	$250,000
Amount of Loss	$260,000

a. (1 point)

Calculate the amount paid by the policyholder at the time of loss under the following:
   i. Coinsurance percentage of 80%
   ii. Coinsurance percentage of 90%

b. (0.5 point)

Describe how coinsurance provisions promote equitable rates.

c. (0.5 point)

Describe how coinsurance provisions promote adequate rates.

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QUESTION 14	
TOTAL POINT VALUE: 2	**LEARNING OBJECTIVE(S): A10**
SAMPLE ANSWERS	
Part a: 1 point	

Sample 1

i. a = min(250/(.8*300),1) = 1.
Amount of loss paid by policyholder = 260,000 – 250,000 = 10,000

ii. a = min(250/(.9*300),1) = .926
Indemnity payment = .926*260,000 = 240,740
Total paid by policyholder = 260,000 – 240,740 = 19,260

Sample 2

i. 250/(300*.8) = 1.042, 0% coinsurance penalty
Loss > ins value, 260,000 – 250,000 = 10,000

ii. 250/(300*.9) = .926, 7.4% coinsurance penalty
Policyholder pays: .074*260,000 = 19,240

Sample 3

i. Insured value = 250/300 = 83.33%, no penalty since > coins requirement
Policyholder pays 260,000 – 250,000 = 10,000

ii. 260,000*(.8333/.9) = 240,731, policyholder pays 260,000 – 240,731 = 19,269

Sample 4

i. Insured value must be at least 300K*(.8) = 240K. Given insured value of 250K (>240K) then insurer will pay the full loss limit of 250K.
Policyholder pays 260K – 250K = 10K

ii. Insured value must be at least 300K*(.9) = 270K. Insured value is less than 270K thus insurer will pay 250K/(300K*.9) = $240,740.
Policyholder pays 260,000 – 240,740 = 19,260

Part b: 0.5 point

- Coinsurance shares losses with underinsureds so ITV insureds do not have excessive rates.
- Coinsurance penalizes those underinsureds by reducing the indemnity payments, so that both fully-insured and underinsureds yield the same losses ➔ equitable i.e. we aren't subsidizing underinsureds with fully insureds
- When some of the insureds insure their property to value but some don't, those who don't insure to value will have penalty of indemnity, so it promotes equitable rates.
- If the insurer assumes all policies are insured to full value but they aren't, then rates will be inequitable between those that are insured to full value and those that are underinsured. The coinsurance provision lowers the paid losses to those that are

underinsured so that the premiums reflect the true expected losses and rates are equitable.
Part c: 0.5 point
• Coinsurance reduces the losses by forcing underinsureds to undertake a portion of the loss in order to reach an adequate rate. • Coinsurance provisions promote adequate rates by penalizing and thus discouraging underinsurance. Underinsured exposures are usually underpriced because policies are priced assuming full coverage. • Coinsurance promotes adequate rates by incentivizing risks to insure to the appropriate value. Thus, the insurer will not be exposed to unknown levels of risk and can rate similar risks accordingly. • It encourages insured to insure to value as there is a coinsurance penalty for underinsureds. When insurance to value happens across the book, the insurer can get the correct exposure which results in correct rates → results in adequate rate.
EXAMINER'S REPORT
Candidates were expected to know how to calculate the coinsurance penalty, as well as explain how the coinsurance penalty promotes both equitable and adequate rates.
Part a
Candidates were expected to calculate the penalty as well as calculate the amount owed by the policyholder. Common mistakes included: • Calculating the amount paid by the insurer instead of the amount paid by the policyholder. • Incorrectly assuming the question was asking about copayments instead of the coinsurance requirement. For example, some candidates assumed all insureds pay 20% of the losses, sharing them with the insurer.
Part b
Candidates were expected to describe how coinsurance provisions promote equitable rates. Common mistakes included: • Referencing a penalty without saying it applied to losses or at the time of loss. • Referencing a penalty without saying it applied only to underinsureds. • Confusing the definitions of equitable and adequate rates.
Part c
Candidates were expected to describe how coinsurance provisions promote adequate rates. Common mistakes included: • Rewording the question and never explaining how coinsurance provisions make rates adequate. • Stating that coinsurance provisions guaranteed or required insurance to value when it only encourages or promotes insurance to value. • Confusing the definitions of equitable and adequate rates.