

BAYLOR UNIVERSITY
HANKAMER SCHOOL OF BUSINESS
DEPARTMENT OF FINANCE, INSURANCE & REAL ESTATE

Problem Set #6 (Corrected for typos)
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Name: _____

You are an insurer. All of your clients are arbitrarily risk averse; in the absence of insurance, each one of them starts out with \$150 in initial wealth and loses \$100 if they are involved in an accident. The insurance policies you can offer them are also shown, as well as the insured wealth under each policy:

	premium	Indemnity (payment by the insurer to the client)	wealth in non-loss state	wealth in loss state
uninsured wealth			\$150	\$50
policy A	\$12	\$44	\$138	\$82
policy B	\$26	\$100	\$124	\$124
policy C	\$76	\$100	\$74	\$74

Half of your clients have a probability of loss equal to .75, the others have probability of loss equal to .25. They know their risks but you don't. You do know that the high-risk clients rank the contracts, best to worse, in this order:

High risk clients' insurance preferences: policy B is preferred to policy A, policy A is preferred to policy C, and policy C is preferred to not being insured.

The low-risk clients prefer the contracts in this order:

Low risk clients' insurance preferences: policy B is preferred to policy A, policy A is preferred to not being insured, and not being insured is preferred to policy C.

Which policies should you offer if you are interested in maximizing the expected value of profit? Your choices are to offer 1) all three policies, 2) policies A and B, 3) policies A and C, 4) policies B and C, 5) just policy A, 6) just policy B, 7) just policy C, and 8) no policies. Explain carefully by showing that your choice produces a higher expected value of profit than any of the other possible choices that you can make.