

Name:

Five Minute Exercise

Expected Value and Fair Insurance

Given:

A firm would be willing to pay \$12,000 to dispose of a chemical in a landfill
There is a 50% chance the chemical would leak out of the landfill
If a leak occurs, it will be small or large, each with a 50% chance
If a small leak occurs, it would cause \$4,000 of damages to nearby residents
If a large leak occurs, the damages would be \$40,000

Determine:

The overall gain or loss from disposal with fair insurance for the residents.

Answer: