

Option 1: $W_{1}=50 \quad$ with Prob $=1 \quad E\left(W_{1}\right)=50$

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\begin{aligned}
\text { Option 2: } \mathrm{W}_{2}=0 & \text { with Prob }=0.5 \quad \mathrm{E}\left(\mathrm{~W}_{2}\right)=0.5 \times 0+0.5 \times 100=50 \\
100 & \text { with Prob }=0.5
\end{aligned}
$$

Expected Utility of Wealth $=\mathrm{E}[\mathrm{U}(\mathrm{W})]=\Sigma \mathrm{Prob} \times \mathrm{U}(\mathrm{W})$
$E\left[U\left(W_{1}\right)\right]=U(50)$
$E\left[U\left(W_{2}\right)\right]=0.5 \times U(0)+0.5 \times U(100)$

