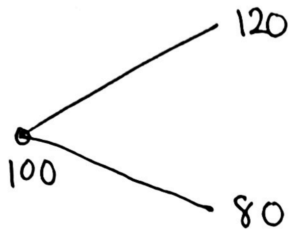
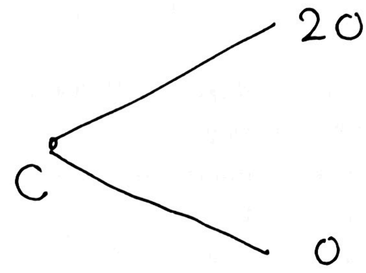
Quiz 5 Solutions

1. Risk free rate = 10% Exercise price = \$100.



Stock



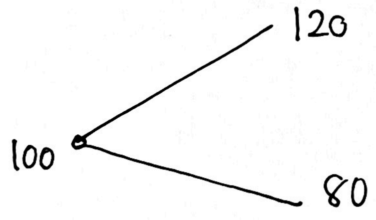
Call option

Hedge Ratio $= \frac{20}{40} = \frac{1}{2}$

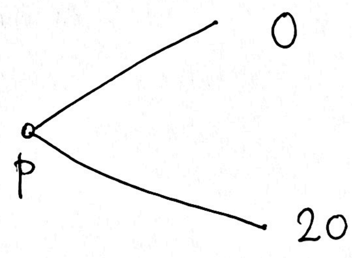
	S=80	S=120
Buy 1 Stock	80	120
Sell 2 calls	0	−40
Total	80	80 ← Riskless Pay off

$100 - 2C = \frac{80}{1.1} \rightarrow \boxed{C = 13.63}$

2. Exercise price = \$100



Stock



put option

Hedge Ratio $= \frac{-20}{40} = \frac{-1}{2}$

	S=80	S=120
Buy 1 Stock	80	120
Buy 2 puts	40	0
	120	120

Riskless pay off

$100 + 2P = \frac{120}{1.1}$

$\boxed{P = 4.54}$