Options teacher pack

Separate an option's contractual payoff from the buyer's profit and the writer's risk.

For learners around age 14 and curious adults. Three 40-minute sessions. Use with the current AHA Options manuscript. References use chapter titles so they work in both print and ebook.

Learning goals

Separate an option's contractual payoff from the buyer's profit and the writer's risk.

Use the terms call; put; strike; premium; expiry; contract multiplier. Show the reasoning behind an answer and identify where the example stops applying.

Reading route

1. A call is a ticket to buy

2. Worked example one the call

3. The writer has the other side of the risk

Teaching plan

Session 1: Ask the opening question before reading (5 minutes). Read the first selected chapter together (15). Draw the mechanism or compare two possible explanations (15). End with a one-sentence explanation (5).

Session 2: Read the remaining selected material (10 minutes). Complete the worksheet individually, then compare reasoning in pairs (20). Discuss the common wrong turn (10).

Session 3: Revisit one uncertain answer (10 minutes). Try the extension (15). Give a two-minute explanation without the book (10). Use the exit question (5).

Materials and access

Paper, pencil, the book and an optional calculator. Read diagrams aloud, allow spoken or drawn responses, and give extra time for vocabulary. No real accounts or specialist equipment are needed.

Options learner worksheet

Opening question

A call finishes $2 in the money. Is its buyer guaranteed a profit?

Investigation

Use a fictional call with a $50 strike, a $3 premium per share and a 100-share multiplier. At expiry, calculate the payoff and buyer's profit when the stock price is $45, $52 and $60. Ignore fees and taxes. This is paper arithmetic, not a trade.

1. What is the buyer's profit at $45?

Show your reasoning, label units or evidence, and state any assumptions.

2. What is the buyer's profit at $52?

Show your reasoning, label units or evidence, and state any assumptions.

3. What is the buyer's profit at $60 and the expiry break-even price?

Show your reasoning, label units or evidence, and state any assumptions.

Transfer question

For a $50-strike put costing $3 per share, derive max(50 - stock price, 0) × 100 - 300. At $40 the buyer's profit is $700.

Exit question

What would you now check before accepting a claim about this topic? Name one specific check and explain why.

Options answers and teaching notes

Answer 1

Payoff is zero; the buyer loses the $300 premium.

Answer 2

Payoff is ($52 - $50) × 100 = $200; profit is $200 - $300 = -$100.

Answer 3

Payoff is $1,000 and profit is $700. Expiry break-even is $50 + $3 = $53 per share.

Common wrong turn

Being in the money does not mean the premium has been recovered.

Extension discussion

For a $50-strike put costing $3 per share, derive max(50 - stock price, 0) × 100 - 300. At $40 the buyer's profit is $700.

Assess the explanation

Give one point each for a correct conclusion, visible reasoning, correct units or evidence, and a relevant limitation. A correct number with no explanation is not a complete answer. Accept equivalent wording and well-supported alternative interpretations where the question allows them.

If the learner gets stuck

Return to the diagram or the smallest example. Ask what is being counted, compared or transferred. Let the learner revise the answer after explaining the mistake; do not reward speed over understanding.

Family connection

Explain the difference between buying a right and selling a promise using a pretend ticket. Do not open or use a brokerage account for this exercise.