



Dear chako, you have 28 days left in the course.



Quiz

QUIZ 9



Attempt Result

Question 1

Which of the following statements concerning the Black Scholes formula is true?

- ☒ **There are exact solutions for option sensitivities for the Black Scholes model.**
- ☐ **Perpetual American options have a closed solution.**
- ☐ There is a closed solution for options with early exercise.
- ☒ **The Black Scholes use the Gaussian cumulative distribution function (cdf).**
- ☒ **Put-call parity relates put and call option prices.**
- ☒ ~~The Black Scholes use the Gaussian probability density (pdf) function.~~
- ☐ **There is a closed solution for plain options.**
- ☒ ~~The Black Scholes formula is valid for non-constant volatility.~~

Question 2

Which of the following concerning FDM is true?

- ☐ There are no constraints on the step sizes in space and time with explicit FDM.
- ☒ **Divided differences can have first-order or second-order accuracy.**
- ☒ ~~Explicit FDM require the solution of a matrix system at each time level.~~
- ☐ **There are no constraints on the step sizes in space and time with implicit FDM.**
- ☒ **They replace partial derivatives by divided difference approximations.**

Question 3

Which of the following concerning the Explicit Euler method is true?

- ☒ **EE is first order accurate in the time direction.**
- ☐ The Explicit Euler (EE) method is unconditionally stable.
- ☒ **The Crank Nicolson method is unconditionally stable and second-order accurate.**
- ☒ **Oscillations occur with EE if the mesh time step is not of the same order as the square of the mesh size in space.**

You answered this question correctly.

Question 4

Which of the following concerning the Monte Carlo method is true?

- ☒ **The Monte Carlo (MC) is less efficient than FDM.**
- ☒ **Computing option sensitivities with MC is feasible (but not efficient).**
- ☒ ~~It is not possible to price barrier options using the MC method.~~
- ☐ Pricing American options using FDM is easier than with MC.
- ☐ **The FDM schemes used to discretise SDEs can give biased results.**

Question 5

Which of the following concerning the Binomial Method Carlo method is true?

- ☒ ~~BM cannot be used for two factor models.~~
- ☐ **The Binomial Method (BM) can be used to price American options.**
- ☒ **BM can give 'zigzag' and oscillatory solutions.**
- ☒ **BM is less flexible than FDM.**

Result

Score: 1 correct answers out of 5 questions. You need at least 5 correct answers to pass this quiz.

Pass/Fail: Failed ([Take this quiz again!](#))



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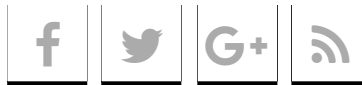
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