ETH THE ENGLISH THEATRE OF HAMBURG

presents

PROOF

by David Auburn

STUDY GUIDE

Premiere on 13th February 2026
Preview performances at reduced prices on 9th, 10th, 11th, and 12th February

Tuesday – Saturday	19:30
selected Sundays	14:30
Wednesday/Friday	11:30 (Matinee performances weekly alternating)

THE ENGLISH THEATRE OF HAMBURG
Lerchenfeld 14
22081 Hamburg

TICKETS
(040) 2277089
eth-bo@englishtheatre.de
or online: www.englishtheatre.de

ETH THE ENGLISH THEATRE OF HAMBURG

Dear English Teachers and Friends,

The English Theatre will premiere the Broadway hit **PROOF** by David Auburn on 13 February 2026, with preview performances at reduced prices on 9, 10, 11, and 12 February. Bookings for this multi-award-winning American play have already started. See the cover of this publication for dates and times of performances. Teachers who wish to preview the play before bringing a group of students to the theatre should contact marketing@englishtheatre.de.

About the Playwright

David Auburn is a contemporary American playwright whose Broadway play **PROOF**, starring Mary-Louise Parker, won the 2001 Pulitzer Prize for Drama and the Tony Award for Best Play. He also wrote the screenplay for the movie version of **PROOF** starring Gwyneth Paltrow and Anthony Hopkins.
Born in Chicago in 1969, Auburn was raised in Arkansas and Ohio. He later attended the University of Chicago where he studied English literature, followed by two years in New York participating in the playwriting program at the Julliard School. His first Off-Broadway play was **SKYSCRAPER**, which debuted in 1997. **THE COLUMNIST**, his initial Broadway play, opened at the Manhattan Theatre Club in 2012, and **LOST LAKE** premiered at New York City Center-Stage in 2014. He has also directed stage works, such as the plays **SICK** by Zayd Dohrn and **ANNA CHRISTIE** by Eugene O'Neill, both for the Berkshire Theatre Festival. In addition to the screenplay for his play **PROOF**, David Auburn wrote the script for the films **THE LAKE HOUSE, THE GIRL IN THE PARK** and for the crime film **GEORGETOWN** directed by and starring the Austrian-German actor Christopher Waltz.

About the Play

Set on the back porch of a house in Chicago, **PROOF** deals with a fraught but touching father and daughter relationship. It also delves into a conflict between sisters, the fine line between genius and mental illness, academia where a woman's accomplishments are often doubted, and the romantic attractions of youth – all woven into a story that is captivating, funny and heartwarming.
Catherine, an emotionally troubled young woman, has just turned twenty-five. She has given up her university education to care for her father Robert, a brilliant mathematician and genius suffering from mental illness. Now, following his death, she is faced with the arrival from New York of her older sister Claire who is set on re-organizing her little sister's life for the better. Catherine is also grappling with the romantic attentions of Hal, a graduate student who is studying the 103 mystifying notebooks that her father left behind. When Catherine gives Hal a notebook in which she herself has written a ground-breaking mathematical proof, emotions escalate. Neither Hal nor Claire will initially believe that it was Catherine who wrote the proof. Claire believes that Catherine may have inherited their father's mental illness. Which only re-enforces Catherine's worst fear about herself.

"When we think of great playwrights, we think of Arthur Miller, Eugene O'Neill and Lillian Hellman. Welcome David Auburn to the club." The New York Magazine

"A wonderfully funny ... ambitiously constructed work." Variety

THE ENGLISH THEATRE OF HAMBURG

SUMMARY

David Auburn's
PROOF

Summary

Place: The back porch and garden of a house in Chicago.

Time: The present-day, plus two flashbacks.

CHARACTERS

ROBERT – a celebrated mathematics professor, 50s

CATHERINE – his younger daughter, 25

CLAIRE – his older daughter, 29

HAL – his former student, 28

Act I, Scene 1

Late at night. Catherine has just turned 25 today and is sitting alone on the back porch of her home in Chicago. Her father Robert, a celebrated university professor of mathematics, died a week ago. His funeral is tomorrow. Catherine imagines that he joins her on the porch with a bottle of champagne to wish her a happy birthday. Robert is surprized that she is up so late. She explains that Hal, one of Robert's former students who is now a teacher, is still upstairs looking through the many notebooks that Robert wrote before his death.

Robert is concerned about Catherine. He scolds her for losing interest in work and mathematics and for ignoring friends. She says she has no friends and does not even consider her sister Claire a friend. Claire is arriving from New York tomorrow for the funeral.

Like her father, Catherine is a skilled mathematician but gave up her university education to care for him when he became mentally ill. He knows that she is worried that she could suffer from the same mental decline. He assures her that mental illness is not simply something one inherits. "Just because I went bughouse doesn't mean you will," he says. He reminds Catherine that he is dead and that she is imagining him.

Robert disappears when Hal comes onto the porch. Hal asks Catherine if he can come back to continue looking through Robert's notebooks. He is certain that he will find something ground-breaking that is worth publishing. She points out that he has already
been there for three days and suspects that he is trying to steal Robert's notebooks to take credit for his work. When she discovers a notebook in Hal's coat, she accuses him of stealing and calls the police. He insists that she look at something written in the notebook. It is a note that Robert wrote on one of her birthdays in the past thanking her for the years she cared for him when he was mentally ill. Hal explains that he was planning to wrap the notebook and give it to her as a birthday present. He leaves abruptly. She begins to cry as police sirens are heard.

Act I, Scene 2

The next morning Claire is on the back porch with her sister. She asks what Catherine's plans are for the future and mentions that some policemen came by to check on her because she had been acting erratically the previous night. Catherine tells Claire about Hal and what happened the night before, but Claire thinks that Hal is a figment of her sister's imagination. Afraid that Catherine, like their father, is losing her mind. She tries to persuade her to move to New York and live with her and Mitch, her soon to be husband. She tells her she could eventually find a place of her own. Claire wants Catherine to be nearby so she can take care of her if necessary, but Catherine insists that she is able to care for herself

Hal appears and Claire realizes that he is a real person. After he goes upstairs to continue looking at Robert's notebooks, Claire again asks Catherine to move to New York with her. Catherine refuses, angry at her sister for assuming she is too unstable to stay in Chicago and live on her own.

Act I, Scene 3

Later that night. People are assembled inside the house at the funeral reception. Catherine is alone outside on the porch. Hal brings her a beer and tells her how good she looks in the dress that her sister bought her. After a while he kisses her, then apologizes, admitting he is a little drunk. Catherine says it is okay and that she is sorry for suspecting him of stealing her father's work. Most of it is junk, she thinks, but tells Hal he can keep looking at the notebooks as long as he wants. She moves to him and kisses him. Hal is surprised and pleased. They kiss again and Hal says that he always liked her even before they officially met. She remembers that he came by the house four years ago to drop off a draft of his thesis for her dad to read. He can't believe she remembers that. She says, "I remember you." They kiss again and she says, "I thought you seemed not boring." They continue to kiss.

Act I, Scene 4

The next morning Catherine is alone on the porch in a robe. Hal enters, half-dressed. It is obvious that they have spent the night together. Catherine tells him she should probably wake up her sister because she is flying home to New York in a couple of hours. Hal tells Catherine the previous night was wonderful and Catherine agrees. They kiss. Then Catherine takes a key from a chain around her neck and gives it to Hal telling him to use it to unlock the bottom drawer of the desk in her father's office. Happy about this, Hal kisses her and goes to unlock the drawer and see what is inside.

Claire enters, hungover from the party the night before. She complains that her old Chicago friends left early and she was left alone with a bunch of drunken physicists. Again, Claire tries to persuade Catherine to make a permanent move to New York and live with her and Mitch. Catherine says she will come in January but only to visit. She adds that it has been "a pretty weird couple of years," taking care of their father, and she needs some time to think over everything. Claire then startles Catherine with the news that she is selling the house to the University where their father taught. Catherine is shocked that Claire would do this. "I LIVE HERE," she exclaims, but her sister says the house is in bad shape and is much too expensive to heat.

Catherine is livid and accuses Claire of kicking her out of her house. Claire reminds Catherine that the house belongs to her too and assures her sister that she doesn't have to worry about a place to live because she can come with her to New York. Catherine reminds Claire she hasn't lived in the Chicago house for years. Claire replies that she was working fourteen-hour days so she could pay all the bills and the mortgage on the house.

Catherine reminds her sister that she gave up her academic ambitions to take care of their father. Claire protests that he should have been in a full-time professional care situation. Catherine snaps back that he "didn't belong in the nuthouse." Claire points out that their father never did any work again after he became ill and that living with him didn't do Catherine any good. Catherine senses that Claire thinks she is mentally unstable like their father and sarcastically asks if Claire has also looked for a "living facility for her bughouse little sister?" Claire adamantly denies that she did such a thing. She just claims that the doctors in New York are the best, but where she lives is up to her. Catherine yells at her sister, "I HATE YOU."

Interrupting their argument, Hal enters with a notebook he found in the bottom drawer of Robert's desk. He asks how long Catherine has known about it, adding that it is incredible. When Claire asks what he is talking about he tells her that it is a mathematical proof. He goes on to explain that it looks like a "mathematical theorem about prime numbers, something mathematicians have been trying to prove since there were mathematicians." And he adds that "most people thought it couldn't be done." Because it is so profound and ground-breaking, Hal automatically assumes that the proof was written by Robert, but Catherine objects. She stuns both Hal and Claire by declaring, "I wrote it."

Act II, Scene 1

This scene takes place four years before the events in the first Act. It is September and Robert is alone on the porch with a notebook and a pen. Catherine enters from the house. She plans to go to the store and wants to know what her father would like to have for dinner. "Not spaghetti," he replies. "Disgusting stuff." Robert suggests that they go for a walk to the lake first and stop by a

store on the way back to pick up something for dinner.

To Robert's surprise, Catherine announces that she is going to resume her studies at Northwestern University in Evanston, Illinois at the end of the month. Robert wishes she would study in Chicago where she would be close to him, but Catherine explains that it would feel weird studying at a university where her father still teaches. She would live in Evanston but tells Robert that it is only a half hour away and she will come home often. She would even take a semester off if he needed her full time. Robert wishes she had told him sooner, but she explains that she waited because she wanted to make sure that he would be fine on his own over a long period of time.

Catherine hears someone knocking at the front door and goes in the house to see who it is. She returns to the back porch with Hal who has a manila envelope in his hand. Robert addresses Hal, one of his graduate students, as Mr. Dobbs but he introduces him to Catherine as Hal. Hal apologizes if he is interrupting something, but Robert tells him it is all right. Hal hands the envelope he has brought with him to Robert. It contains work he has done towards earning his Ph.D. He tells Robert that his work feels done so maybe it is. Robert says that if it feels done there are major errors, but they will find them and fix them. Sarcastically, he adds that Hal is on his way to a solid career teaching younger, more irritating versions of himself.

Hal has polite conversation with Catherine after Robert tells him she will be studying at Northwestern. Hal is impressed. He tells her the first year of school can be great because of all the new people and new places. Robert pretends to be glad she is leaving him alone in peace so he can get some work done.

Soon Hal says he has to go and Robert tells him to come by his office in a week to discuss his work. He suddenly remembers that it is his daughter's birthday and offers to take her out to dinner. Catherine invites Hal to join them for dinner, but he declines, saying that he has other plans. Catherine goes into the house to show Hal to the front door. Left alone, Robert picks up the notebook and pen and begins to write: "September fourth. A good day..." He continues to write as the scene comes to an end.

Act II, Scene 2

This scene begins an instant after the end of the first act where Catherine informs Hal and Claire that she, not her father, wrote the ground-breaking mathematical proof.

Hal is sceptical that Catherine really wrote the proof that he found in the notebook in her father's desk drawer. He asks when she wrote it. Catherine replies that she started it after she quit school and finished it shortly before her father died. Claire also finds it hard to believe that Catherine has the mental capacity to write what Hal thinks is an amazing piece of work. Catherine gets increasingly angry as it becomes clear that neither Claire nor Hal believes that she could actually have written the proof. She claims that the handwriting is hers even though it is similar to her father's and that it was obvious to everyone that her father was in no condition mentally to have been able to write the proof.

Hal suggests that he take the proof to the university and show it to three or four very smart disinterested guys who knew Robert's work and could conclude whether or not he wrote it. Catherine refuses to let Hal do that. She accuses him of just wanting to show them his great discovery. Hal insists that Robert is the only one brilliant enough to have written the proof. Catherine is furious with Hal and hurls insult upon insult at him until he can take no more and leaves.

Then wild with fury, Catherine opens the notebook and tries to rip out the pages to destroy it, but Claire stops her and tries to get her to go inside the house. Catherine and Claire stand apart, breathing hard. After a moment, Catherine throws the book to the floor and runs into the house.

Act II, Scene 3

The next day Hal comes to the house and knocks on the front door. When nobody answers he goes around the house to the back door and knocks on it. Claire comes out on the porch. He is surprised to see her because he thought she would be back home in New York by now. Claire explains that she had to cancel her flight because Catherine was so distraught from yesterday's altercation that she went to bed and is still sleeping. She refuses to

eat or even talk to Claire who is postponing her travel plans until her sister feels better.

Hal wants to talk to Catherine because he feels awful about the things he said to her the day before. Claire asks why Hal slept with Catherine, claiming it has made her job of taking care of her sister harder. Hal says his intimacy with Catherine is none of her business and that their feelings for each other were mutual. Nevertheless, Claire believes that he is somehow responsible for hurting Catherine. Hal asks repeatedly if he can speak with Catherine, but Claire refuses to let him do that. She suspects that he has come for the notebook with the proof and goes into the house to get it. She returns and gives it to Hal with a card that has her phone number in New York. She tells him she trusts him with the notebook and says that efforts to find out who wrote it should be done here where her father taught. She asks Hal to let her know the result of his findings and to advise her as to what the family should do. She would like to understand the proof some day but admits that she inherited only about one-one-thousandth of her father's ability. Catherine has inherited more but she is not sure how much more.

Act II, Scene 4

About three and a half years earlier. Although it is winter, Robert is sitting on the porch, wearing a T-shirt. He is writing in a notebook. Catherine enters wearing a parka. She asks what her father is doing outside in the cold December weather. It is clear that he is not in his right mind when he says he is working outside because it is too hot in the house. Catherine has been repeatedly phoning him from school about a half hour away, but he has not answered the phone. She had to skip class and drive home to see if he was all right. Robert tells her he is working, that he is on fire and that he had to come outside to cool off. He claims he is back in touch with the source of his creativity and he is inspired. Catherine knows that her father is delusional and is imagining things, but she humors him so as not to hurt his feelings. She asks to see what he has been working on. He tells her he has worked out the general outline for a mathematical proof and, although it is not yet finished, he wants her to read it.

Again, Catherine tries to get him to go inside with her where it is warm, but he is too excited about showing her his work to move inside. Robert wants her to work with him on his ideas and he insists that she read out the first lines of the proof he has been writing. She takes the notebook after he yells at her to do so, and she begins to read. She realizes from the first line that what he has written is pure nonsense, and as she continues to read, he gradually comes to the same conclusion. He becomes distraught as he listens to his jumbled, nonsensical thinking which has nothing to do with mathematics. Catherine stops reading when she sees her father shivering uncontrollably. Putting her arms around him she tells him that she will take him inside where it is warm. Robert breaks down emotionally and pleads with her not to leave him. Catherine tells him she will not leave and proceeds to take him inside the house.

ACT II, Scene 5

A week after the events in Act II, Scene 3. Claire is on the porch drinking coffee. She takes out a plane ticket and looks at the itinerary. After a moment Catherine comes out on the porch with her travel bags. Claire gives her a cup of coffee and for a while they are silent. By now Claire has persuaded Catherine to accompany her to New York and for a time to live with her and Mitch.

When Catherine speaks, she says that the coffee tastes good. Claire goes on about how good the coffee is at a place near where she and Mitch live in New York. Catherine plays along, making small talk with her sister. She gives the impression she is happy but underneath her polite conversation it soon becomes evident that she is resentful about leaving her home in Chicago. She is still furious about the way Claire and Hal expressed their skepticism about the proof that she knows she wrote.

Claire promises that Catherine will be happy in her new surroundings. She is certain she will love New York. Catherine responds sarcastically that she can't wait, adding unconvincingly that she is looking forward to seeing Broadway musicals and Rockefeller Center in winter with all the skaters. Claire, sensing Catherine's undertone of discontent, tells her again that she knows how hard it is for her, but once she is there, she will see all the possibilities that are available. Catherine's response is "Restraints, lithium, electroshock." Ignoring this and trying to keep the conversation on a positive note Claire says, "Bright college days! Football games, road trips."

Catherine asks caustically if Mitch knows anyone in the phone sex industry. Taken aback by her sister's negativity, Claire insists that she wants to make the transition as easy as she can. Unhappily, Catherine agrees that it is going to be "so fucking easy you won't believe it." She adds that she wants to see a doctor and she would like him to wear a monocle and have a well-upholstered couch, so she will be comfortable while she is blaming everything on Claire.

Claire has had enough. She tells her sister not to come, to stay in Chicago and see how she does. She blurts out that Catherine cannot take care of herself for five days, that she slept all week causing Claire to postpone their flight and lose a week of work. She is so upset that she pulls Catherine's plane ticket out of her bag, throws it on the table and goes into the house.

Hal enters from the side of the house. Catherine is surprised to see him. He has come to apologize to her, saying that he is certain that Catherine, not Robert, wrote the proof. He has been over it twice with two different sets of mathematicians. They determined it uses a lot of newer mathematical techniques that were developed before Robert became mentally ill.

Catherine tells him sharply to go ahead and publish it and have a press conference where he can tell the world what her father discovered. Or he can pass it off as his own work. She doesn't care. Hal again tells Catherine that he is certain that she, not her father, wrote the proof. For one thing it uses a lot of newer mathematical techniques that were developed in the last decade, and he knows that Robert was unwell the past ten years. He adds that her father dated everything, but there are no dates on the proof.

Unwilling to accept Hal's admission that he was wrong in doubting that she wrote the proof, Catherine angrily spits out, "It's killer stuff. You got laid AND you got the notebook! You're a genius." She adds that he should have trusted her. Hal pleads with Catherine to stay in Chicago, but she tells him that Claire sold the house and she wants her in New York so she can take care of her. Hal counters by asking if she really needs someone to take care of her. Catherine answers that it might not be so bad because she is tired.

Catherine tells Hal she is afraid she might have mental problems like her father, but Hal insists that there is nothing wrong with her, that she may even be intellectually superior to her father. He hands her the notebook and she takes it. She says that what she wrote didn't feel "amazing" to her as Hal has described the proof. For her it was just a matter of "connecting the dots." Sometimes she would get stuck. Then she took time off and watched TV with her father and talked with him, but she always came back to working on the proof and eventually finished it. There are still "compromises, approximations, places where it's stitched together," she says. Hal urges her to talk him through the proof and possibly improve whatever is bothering her. She now listens attentively to Hal's encouragement and finally decides to trust him again. She opens the notebook and turns to a section that she can discuss with him.

As the lights dim, she quietly reads aloud some of the mathematical equations in her proof. This cooperation with Hal suggests that Catherine's state of mind could again become positive, enabling her to live an independent and productive life.

CURTAIN

ETH THE ENGLISH THEATRE OF HAMBURG

Objective Questions

1. Where does the play take place?
2. Who does Catherine imagine she is talking to on the back porch or her house?
3. What subject did Robert teach at the university?
4. What is Hal doing upstairs in Robert's office?
5. What was Hal and Robert's relationship?
6. Why did Catherine give up her university education?
7. Why does Claire want Catherine to move to New York?
8. Is Hal romantically interested in Catherine or Claire?
9. Who wrote the ground-breaking mathematical proof that Hal found in Robert's desk?
10. Why didn't Hal and Claire believe initially that Catherine wrote the proof? .
11. What finally convinced Hal that Catherine, and not her father, wrote the proof?

For Discussion or Written Work

1. Discuss Catherine and Robert's situation in the play and why mental illness is such a relevant topic today.
2. How are the lives of Catherine and Claire different and how does this explain their conflict in the play?
3. Are Hal and Claire justified in doubting that Catherine wrote the mathematical proof? Do you believe Catherine's role as a woman helped or hindered her struggle for recognition?
4. What do you think happens to Catherine, Hal, and Claire after the play ends? Does Catherine follow Claire to New York? Does she pursue her studies? Do she and Hal continue their relationship? t

Answer Key

1. On the back porch of Catherine's house in Chicago.
2. Her father Robert who has recently died.
3. Mathematics.
4. He is looking through the notebooks that Robert wrote before his death.
5. Hal was one of Robert's graduate students at the university.
6. To care for her father Robert when he became mentally ill.
7. So that she can take care of Catherine.
8. In Catherine.
9. Catherine did.
10. They doubted she had the training or mental capacity of her father to do so.
11. He and his colleagues at the university determined that some of the mathematical techniques used in creating the proof were developed after Robert became mentally ill.