



*The Power of Two: Math and Theater Experiences for Students*  
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# *HEY, BENJAMIN BANNEKER, COME PLAY WITH US!*

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## *Hey, Benjamin Banneker, Come Play with Us!*

Cast		
Scene I	Scene II	Scene III
Kid 1	Kid 1	Kid 1
Kid 2	Kid 2	Kid 2
Benjamin Banneker ( <b>B.B.</b> )	Benjamin Banneker ( <b>B.B.</b> )	Benjamin Banneker ( <b>B.B.</b> )
Chorus	Chorus	Chorus
Narrator	Narrator	Narrator
Boy	Boy	Boy
Fox	Girl	Girl
Chicken	Guest 1	
Cabbage	Guest 2	
	Guest 3	
	Guest 4	
		Ellicott
Molly	Molly	Inn Keeper
Boss	Uncle Ned	Printer 1
Judge		Printer 2
African		Printer 3
Bannu Ku,		Sister 1
Slaver 1	Kidnappers 1 (K1)	Sister 2
Slaver 2	Kidnappers 2 (K2)	George Washington ( <b>GW</b> )
Slaver 3	Kidnappers 3 (K3)	Thomas Jefferson
Slaver 4	Kidnappers 4 (K4)	Harriet Tubman
		Abraham Lincoln
	Customs Agent	Jane Addams
		Martin Luther King, Jr. ( <b>MLK</b> )

### Classic math problems integrated into the script



**Scene I:** Once there was a boy who needed to take a cabbage, a fox, and a chicken across the river but his boat was so small it could only hold him and one other thing. How did he solve the problem?



**Scene II:** If I invite 4 people to my house for dinner, how many handshakes will there be if all five of us shake each other's hand?



**Scene III:** The new butcher wants to know how many pounds he can weigh with just 4 weights. He has a 1 pound weight, a 2 pound weight, a 4 pound weight and an 8 pound weight.

## Scene I

**Chorus:** Hey, Benjamin Banneker, come play with us!

**Kid 1:** Tell us about your grandmother.

**Kid 2:** Tell us about your grandfather.

**B.B.:** Hey, children, can you solve a problem first? You must learn to become good problem solvers like my grandmother and my grandfather so that you can provide a good life for your family.

Here is my problem: Once there was a boy who needed to take a cabbage, a fox, and a chicken across the river but his boat was so small it could only hold him and one other thing.

**Boy:** Which one should I take first? (While putting “cabbage hat” on actor) If I take the cabbage, the fox (puts ears on fox) will eat the chicken. If I take the fox, the chicken (puts wings on chicken) will eat the cabbage. If I take the chicken...

**Chorus:** Take the chicken!

**Boy:** I will take the chicken across first. (Takes chicken across.)

**Fox:** I will not eat the cabbage.

**Boy:** (As boy returns) What should I do now?

**Chorus:** Take the cabbage.

**Boy:** I will now take the cabbage across but I will return with the chicken.

**Chicken:** (As he enters the boat) ...because I would eat the cabbage.

**Boy:** (As boy returns) I will drop off the chicken and take the fox across.

**Cabbage:** (As boy drops off the fox) Good. The fox will not eat me.

**Boy:** (As boy returns) I will return for the chicken and we can all continue our journey.

**B.B.:** Great problem solving! Here is the story you seek. My grandmother Molly Walsh was a milkmaid in England. Her boss accused her of stealing the milk.

***Molly:** But I told you, the cow tipped the pail over.*

***Boss:** I do not believe you. You must go to the judge.*

***Judge:** Death! The penalty for stealing milk is death—unless. Can you read? Bring out the Bible.*

***Boss:** Try to read this.*

***Molly:** The Lord is my Shepherd...*

***Judge:** Send her to the colonies, to Maryland. She will be an indentured servant.*

**Narrator:** After 7 years of work, Molly was free. According to the law, her boss had to give her a mule, some seeds, a wagon, some land and a little money.

**B.B.:** Meanwhile, in Africa

***African:** Run, Prince Bannu Ku! The slavers are coming.*

***Bannu Ku:** Run ahead. I will make them chase me the other way so our people will have time to hide.*

***Slaver 1, 2, 3 and 4:** We have you now. You are big and strong. We will get a great price for you.*

**Narrator:** What happened to the prince next is what happened to all of the Africans who were captured and taken to the new world. They were placed in chains, packed into the bottom of ships and carried across the Atlantic Ocean. Prince Bannu Ku and Molly Walsh meet in Baltimore.

***Molly:** I need help to build a farm. I will buy two slaves to help me. I will free them and we will work together to build a good farm.*

**Narrator:** In time, Molly fell in love with the African prince, Bannu Ku, and they married. They built a farm, raised a family, and solved many, many problems along the way.

## Scene II

**Chorus:** Hey, Benjamin Banneker, come play with us!

**Kid 1:** Tell us how you escaped from the kidnappers.

**Kid 2:** Tell us how you were cheated.

**B. B.:** Hey, children, can you solve a problem first? You must learn to become good problem solvers to keep you from being bullied or cheated.

Here is my problem: If I invite 4 people to my house for dinner, how many handshakes will there be if everyone shakes hands?

**Girl:** Well, let's act this out. Ben, shake hands with each guest.

**Boy:** one, two, three, four

**Girl:** (GIVES BEN A NUMBER 4.) Guest #1, shake hands with everyone but Ben. You already shook his hand.

**Guest #1:** one, two, three

**Girl:** (GIVES GUEST #1 A NUMBER 3.) Guest #2, shake hands with everyone but Ben and Guest #1. You already shook their hands.

**Guest #2:** one, two

**Girl:** (GIVES GUEST #2 A NUMBER 2.) Guest #3 shake hands with everyone but Ben and Guest #1 and #2. You already shook their hands.

**Guest #3:** one

**Girl:** (GIVES GUEST #3 A NUMBER 1.) Guest #4, you have already shaken everyone's hand. (GIVES GUEST #4 A 0.)

**Boy:** The answer to Ben's question is  $4 + 3 + 2 + 1 + 0$  or 10. What a nice pattern! If I am the fifth guest, and I shake everyone's hand, I will have to add 5. (HE SAYS AS HE SHAKES EVERYONE'S HAND.)

**Chorus:** We would add  $5 + 4 + 3 + 2 + 1 + 0$ .

**Girl:** For a fifth guest, we would add  $5 + 4 + 3 + 2 + 1 + 0$ . Chorus, if we have 6 guests, what numbers will we need to add?

**Chorus:** We would add  $6 + 5 + 4 + 3 + 2 + 1 + 0$ .

**B.B.:** Great problem solving! Here is the story you seek. I was 22 years old at the time. That year our crop of tobacco was not only plentiful but of the highest quality.

*B.B.: Please grandmother. We will get so much more money if we take our tobacco all the way to the port of Baltimore. Then we can buy the additional farmland you want.*

**Molly:** *It is not safe. Gangs are kidnapping free Blacks and selling them in the South as slaves.*

**B.B.:** *Please. All of my papers are in order.*

**Molly:** *OK but you cannot go alone. Take Uncle Ned with you.*

**Chorus:** *Good-bye Ben, Good-bye Uncle Ned. Good luck. Be careful.*

**Narrator:** *Ben and Uncle Ned are stopped by kidnappers.*

**Kidnappers:** *Halt.*

**K1:** *Where are you going?*

**K2:** *Did you steal that tobacco?*

**K3:** *Where are your papers?*

**B.B.:** *Here. Look. I am a farmer, a free Black man.*

**K3:** *Where are your papers?*

**Uncle Ned:** *I cannot seem to find them. I must have left them at home.*

**B.B.:** *I have known this man all my life. He is a free Black man. We are only an hour from his home. Come back with us. He will show you his papers.*

**K4:** *Don't listen to him. Grab him. He will bring a high price. No one will ask any questions.*

**Narrator:** *The kidnappers tossed Uncle Ned on to a horse and galloped away. Ben tried to follow but the pack-horses carrying the tobacco were tied to his horse. He could only watch as the kidnappers got farther and farther away.*

**B.B.:** *We will never see Uncle Ned again. He will struggle and be beaten. He will try to escape and they will kill him. He will never make it alive to the slave market.*

**Narrator:** *Ben fell to the ground, sobbing.*

**BB.:** *What should I do? I cannot go home and report the kidnapping. No Black man can accuse a white man of a crime. I want to go home more than anything but I cannot fail Grandma Molly.*

**Narrator:** There is nothing Ben can do for Uncle Ned. If he doesn't go to Baltimore, his family will lose the money from their crop and have difficulty surviving to the next year. Ben continued on his journey to Baltimore. When he arrived at the customs office:

**Customs Agent:** *Where did you get this? I bet you stole it.*

**B.B.:** *No sir, I raised it myself.*

**Customs Agent** *Who do you belong to?*

**B.B.:** *I am a free person. Here are my papers.*

**Customs Agent:** *This is terrible tobacco.*

**B.B.:** *No it is not. It is the best tobacco in the county.*

**Customs Agent:** *No it is not. No black farmer can raise tobacco as good as a white farmer.*

**B.B.:** *Just look.*

**Customs Agent:** *Only 1/3 is good. Here is 10 pounds for it.*

**B.B.:** *Sir, I know it is worth more than that. I will take it back home and find another port.*

**Customs Agent:** *Not so fast. You cannot come in trying to cheat. I can confiscate this and you will get nothing.*

**Narrator:** Ben was forced to take only a fraction of what the tobacco was really worth. It was just enough money to let the family get by until the next season. There would be no extra money to buy new farmland. Ben realized that not all problems had good solutions.

### Scene III

**Chorus:** Hey, Benjamin Banneker, come play with us!

**Kid 1:** Tell us about George Washington.

**Kid 2:** Tell us about Thomas Jefferson.

**B.B.:** Hey, children, can you solve a problem first? You must learn to become good problem solvers. The promise of our nation depends upon it.

Here is my problem: The new butcher wants to know how many pounds he can measure with just 4 weights. He has a 1 pound weight, a 2 pound weight, a 4 pound weight and an 8 pound weight.

**Boy:** Well, 1 pound and 2 pounds are obvious.

**Girl:** He can make 3 pounds by putting 1 pound and 2 pounds together. 4 pounds is obvious.

**Boy:** He can make 5 pounds by putting 4 pounds and 1 pound together. He can make 6 pounds by putting 4 pounds and 2 pounds together.

**Girl:** He can make 7 pounds by putting 4 pounds and 2 pounds and 1 pound together. 8 is obvious.

**Boy:** Chorus, How can he make 9 pounds?

**Chorus:** He can put 8 pounds and 1 pound together.

**Girl:** Chorus, how can he make 10 pounds?

**Chorus:** He can put 8 pounds and 2 pounds together.

**Boy:** Chorus, how can he make 11 pounds?

**Chorus:** He can put 8 pounds and 2 pounds and 1 pound together.

**Girl:** Chorus, how can he make 12 pounds?

**Chorus:** He can put 8 pounds and 4 pounds together.

**Boy:** Chorus, how can he make 13 pounds?

**Chorus:** He can put 8 pounds and 4 pounds and 1 pound together.

**Girl:** Chorus, how can he make 14 pounds?

**Chorus:** He can put 8 pounds and 4 pounds and 2 pounds together.

**Boy:** The most he can make is 15 pounds:  $8 + 4 + 2 + 1$ .

**Girl:** To weigh more, he needs to buy a 16 pound weight, that's obvious.

**B.B.:** Great problem solving! Here is the story you seek.

*Ellicott:* Ben, I have just been asked by President Washington to survey the land that will be the new capital of our country. Would you come with as my assistant?

*B.B.:* Yes, I can leave my farm for a few months.

*Narrator:* On the way to the site, Ellicott and Ben stopped at the Wise's Fountain Tavern in Alexandria, Virginia.

*Ellicott:* Two of your best rooms, please.

*Inn Keeper:* I have an excellent room for you but your servant will have to stay in the back.

*Ellicott:* He is not my servant. He is my assistant and we are on an important mission from President Washington.

**Narrator:** No records show a meeting between George Washington and Benjamin Banneker but they surely met many times since George Washington, a surveyor himself, often visited the site.

*GW:* Are you crazy, Ellicott? Your assistant surveyor is a Black man.

*Ellicott:* He is a free Black man. He is the best man for the job. He knows surveying, astronomy and he has a high sense of responsibility.

*GW:* I cannot have a Black man on the survey team.

*Ellicott:* You promised that I could hire whomever I chose.

*GW:* So I did. I must keep my word. He can stay.

**Narrator:** Only one newspaper reported on Banneker's race noting that Banneker's abilities as a surveyor and astronomer clearly proved that Thomas Jefferson's statement that the Black race was "void of mental endowments" was wrong. When his work was done at the new capitol, Banneker returned to his farm to complete writing his most important project, an almanac for 1792. He rushed to do all the measurement in time for printing.

*Printer 1:* Dear Mr. Banneker, I know I said I would print your almanac but my regular clients have let me know that they will quit me if I print the work of a Black man. Too bad because the math puzzles you include in the almanac are great.

*Printer 2:* Dear Mr. Banneker, I cannot print your work because no one will believe you wrote it since you are a Black man. Too bad because the math puzzles you include in the almanac are fantastic.

*Printer 3:* Dear Mr. Banneker, We will print your almanac because it is a very extraordinary performance, considering your color. By the way, we love your math puzzles.

*B.B.:* I am annoyed to find that the subject of my race is so much stressed. The work is either correct or it is not.



**Narrator:** Blacks in the new United States of America were beginning to lose hope. They had believed in the promise of freedom and liberty outlined by the Founding Fathers but the laws of the new country made their existence ever more miserable. Ben decided to send Thomas Jefferson a copy of his almanac and a letter expressing his disappointment.

***Sister 1:** Send it Ben. This is a chance to make a declaration that no Black man has ever made.*

***Sister 2:** Be careful Ben. You could go to jail.*

***Sister 1:** Send it Ben. Thomas Jefferson is the most appropriate target.*

***Sister 2:** Be careful Ben. Your life could be in danger.*

***Sister 1:** Send it, Ben. It is the greatest piece of anti-racist evidence ever produced.*

***B.B.:** “Sir, suffer me to recall to your mind that time in which the arms and tyranny of the British Crown were exerted with every powerful effort in order to reduce you to a State of Servitude. This, Sir, was a time in which you clearly saw into the injustice of a State of Slavery...”*

***Thomas Jefferson:** No body wishes more than I do to see such proofs as you exhibit, that nature has given to our black brethren, talents equal to the other colors of man... (but there are) other circumstances which cannot be neglected...”*

**B.B.:** Our founders could not solve the contradiction of establishing a free nation which included slavery. You must grow up to solve the problems of injustice. Who will grow up to be Harriet Tubman?

**Harriet Tubman:** I will. “Always remember, you have within you the strength, the patience, and the passion to reach for the stars to change the world.”

**B.B.:** Who will grow up to be Abraham Lincoln?

**Abraham Lincoln:** I will. "Whenever I hear any one arguing for slavery I feel a strong impulse to see it tried on him personally."

**B.B.:** Who will grow up to be Jane Addams?

**Jane Addams:** I will. “The good we secure for ourselves is precarious and uncertain until it is secured for all of us and incorporated into our common life.”

**B.B.:** Who will grow up to be Martin Luther King, Jr.?

**MLK:** I will. “Almost always, the creative dedicated minority has made the world better.”

**B.B.:** Who will grow up to make sure that the Declaration of Independence is a promise kept for every American?

**All:** We will. “We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty and the Pursuit of Happiness.”

**The End**

**Solve the riddles to find the dates of important events in the life of  
BENJAMIN BANNEKER**

All of my digits are odd; the ones digit and the thousands digit are the same; the hundreds digit is 7; and the sum of the digits is 12.

**In what year was Benjamin Banneker born?**    \_\_\_    \_\_\_    \_\_\_    \_\_\_

I am an even number. My thousands and hundreds digit are the seventh prime number; the product of my tens and ones digit is 42.

**In what year was the American document declaring “that all men are created equal” published?**    \_\_\_    \_\_\_    \_\_\_    \_\_\_

My hundreds and tens digits are consecutive odd integers whose product is 63; the ones digit and the thousands digit are the same; and the sum of the digits is 18. **In what year did Benjamin Banneker write a letter to Thomas Jefferson arguing against slavery?**

\_\_\_    \_\_\_    \_\_\_    \_\_\_

My hundreds and tens digits are consecutive odd integers whose sum is 16; the ones digit is the first prime number; and the sum of the digits is 19.

**In what year did Benjamin Banneker publish his first almanac?**

\_\_\_    \_\_\_    \_\_\_    \_\_\_

My units digit is equal to 3!; my hundreds digit is two more than my units digit; and my tens digit is the additive identity.

**In what year did Benjamin Banneker die?**    \_\_\_    \_\_\_    \_\_\_    \_\_\_

Also see

<http://mathflix.luc.edu/pdfs/Connections/C0008socialstudies.pdf>

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