

# "X on the Spot"

By LOUISE MEALS

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AUTHOR'S NOTE: The author realizes perfectly that the validity of some of the arguments used in the play could be questioned seriously. Readers are reminded, however, that all the statements used are actual quotations from persons not in the teaching profession and, as such, reflect the attitude of the layman toward mathematics.—L. M.

## CHARACTERS

Dick Bradford	}	Pupils at the E.T.H.S.
Jane Bradford		
Bob Adams		
Tim Brooks		
Ann Montgomery		
Mrs. Bradford, mother of Dick and Jane		

TIME: 7 p.m., on a mid-September evening.

SCENE: *The Bradford living room. There is a davenport at the center back, with easy chairs at the left and right. A table stands at the left of the davenport, and there is a stool between the davenport and the chair at the right. A door at the rear left leads to the hall, and one at the rear right to the dining room.*

## SCENE I

*Mrs. Bradford is on the davenport, knitting. Dick and Jane are sprawled in the easy chairs.*

MRS. B.: If you don't mind my curiosity, —why all this sudden interest in mathematics?

DICK: Well, y'see, Mom, we just gotta win the football championship this year!

MRS. B.: (*Putting down her knitting and looking at him in a bewildered fashion*) Er—what?

JANE: What Dick means, Mother, is that if Bob Adams flunks math., he'll not be able to play football.

DICK: And if he's off the team—bingo! There'll go our chances for the championship!

MRS. B.: But what has that to do with you two? Hasn't Bob enough backbone—he's certainly smart enough—to get down to business and pass the math.?

DICK: Sure he has, Mom! You don't understand! It's a matter of principle with him now, and even being kicked off the team won't budge him! He says he's not going to be an engineer, so why should he waste his time doing math.!

MRS. B.: What *is* he going to do?

DICK: He doesn't know yet.

MRS. B.: Then how does he know he won't need math.? Other people aside from engineers use it.

JANE: He knows that, Mother,—and he knows he has to have it to get into college, too, but he's just got stubborn over the whole thing. So we thought—Ann, and Dick, and I—

MRS. B.: Where does Ann come in on this? She doesn't strike me as the type that would be especially interested in mathematics!

DICK: Heck, Mom! It's not math. any of us're interested in! It's getting Bob interested in it enough so he'll do the work and keep eligible!—But you're wrong about Ann. She gets nineties in math. all the time.

MRS. B.: Then why doesn't *she* help Bob out?

JANE: Oh, Mother, that *would* be dumb! Why, she carries a red pencil around in her purse all the time, just so she can mark her papers down fifteen points before she shows 'em to Bob!

DICK: And, anyhow, that wouldn't help. We've gotta make him want to do it himself.

MRS. B.: And just how are you planning to do that?

JANE: Well, we got Ann to organize a club to study careers—we knew Bob'd

join if Ann got the thing up—and for this first meeting we're going to study all the different careers where you use math.

DICK: And if it works—that is, if we can get Bob to do his math.—why, this will probably be the first, last, and only meeting of the famous Careers Club!

MRS. B.: What are all those papers you've got there?

JANE: Well—er—you see, we each interviewed some men and women around town and got them to tell us if they used math. in their work; and if they did, just how.

MRS. B.: (*Aghast*) Do you mean to tell me that you actually asked all those busy people to stop and do that for you?

DICK: Sure! Why not?

JANE: After all, Mother, it was in a good cause!

MRS. B.: How many of you are there in this club?

JANE: Oh, just us and Ann and Bob.

DICK: And Tim Brooks. Don't forget him! Bob made us ask him—they're always together.

JANE: And is he ever going to be a problem, tonight! He's awful smart in everything else—just a whiz in languages—but he's dumber'n dumb in math. He just can't see through it, that's all. (*Bell rings*) Oh, there they are, now!

*Exit Jane—Left*

MRS. B.: (*Folding up her knitting and rising*) Well, I'll leave you to your nefarious plans. There'll be something for you to eat in the dining room about half past nine, Dick. Remember, they can't stay late! Football championship or no football championship, this is a school night!

*Curtain*

## SCENE II

*Bob and Tim are on the davenport. Jane and Ann occupy the easy chairs, while Dick sits on the stool.*

BOB: What I say is, why do we waste a whole evening talking about careers where you use *math.*? Why not English? There's some sense to that! You've just gotta know how to express yourself if you want to be successful!

ANN: (*Mildly*) But we all know that, Bob,—that's why we don't have to talk about it. What we do need, though, is to find out about the things that call for work in some particular subject.

TIM: But why start with math.? Why not languages?

JANE: Well, we took math. because so many things depend on it.

BOB: Oh, yeah?—What?

JANE: You remember that picture, don't you, that's in all the math. rooms? The one that was copied from the Science Building at the Chicago Fair?

DICK: You know the one she means, Bob. It shows a whole lot of different sciences as branches of the Tree of Knowledge,—and the root of the whole tree is mathematics.

BOB: Yeah, I know!—And I bet some math. teacher thought that up, too!

ANN: But, Bob, you *do* need math. for all those sciences!

JANE: Math. must be *awfully* important, Bob, for a lot of things, or the colleges wouldn't require so much of it for entrance.

BOB: Oh, wouldn't they, just! I betcha two bits they just require it because some guy a million years ago found out it was a swell way to keep a lot of people like me out of college!

ANN: Oh, well, let's stop arguing, and get down to business.—Did you all bring a list of the things you want to do? (*Tim gets out a list*) What're you going in for, Tim?

TIM: Well, I guess I'll be an architect. I could go to Paris and study,—'n' I like French 'n' ev'rything.

ANN: Got anything there about architects, Jane?

JANE: (*Running through the statements in her hand*) No, I'm afraid I haven't.

BOB: (*Triumphantly*) There—you see? You don't need math. for one of the very first things a fella'd be interested in!

DICK: Heck, Bob! We couldn't investigate *ev'rything* in two days! And, anyhow, it stands to reason an architect'd *have* to have some training in math.!

BOB: I don't see why. He could draw up the plans, and let some contractor worry about the actual construction.

ANN: But, Bob, how could he draw the plans in the first place?

JANE: And what if they weren't practical after that?

DICK: (*Sarcastically*) I suppose he could just keep on doing 'em over and over until he just *happened* to get 'em right! Seems like an awful waste of time, if that's what they actually do!

BOB: (*Thoughtfully*) Well, maybe you're right, at that.

ANN: You'd better cross that off, Tim, if you don't like math.!--What's next?

TIM: Well, if I can't be an architect, I guess I'll be an artist.—You don't need math. for that.

JANE: Well, I don't know about that, Tim. (*Takes up a statement and looks at it*) Miss Goffe says here that you have to use geometry all the time in design.

TIM: (*Ruefully*) Gosh, that's out, too! Well, I guess I'll have to be a diplomat. That's the only other thing I've thought about.

ANN: (*Enthusiastically*) Oh, that'll be fine, Timmy! I guess all diplomats have to do is to talk in seven different languages. I don't think (*judicially*) they use any math. At least, Dad says their reasoning isn't always very clear or logical.

JANE: Then maybe they'd do a better job if they did use some math.!

BOB: What beats me is why you girls have taken such a sudden interest in this darn stuff! You won't ever be using it!

JANE: That's what you think!--You know I'm going to be a librarian; and when we went in to the Public Library today

to talk to Miss Wright, the very first thing she asked me was what courses I was taking that would test how accurate I was, and whether I could carry a thing through to completion. Of course, I said math., right off, and she seemed awfully pleased about that.

BOB: I don't see why.

JANE: Well, she said math. helped you to be accurate in keeping the records of the books that come in and go out,—and in all sorts of other things!

ANN: For instance, she says librarians have to do real detective work in tracing people and events from very slight clues; and that alertness and logical thinking are terribly necessary.

JANE: And she said she'd found that any student whose school records showed ability in math. could be counted on to do good work in a library. And—

BOB: (*Interrupting, hands up*) Hey, stop! I give in! *You need math. to work in a library!*

TIM: But what about you, Ann? You're not going to be a librarian, too, are you?

ANN: No. I'm going to have a tearoom, all my own. You know,—a very swanky place, all modernistic stuff, and ev'rything!

BOB: So I suppose you tackled Don Robertson, or someone like that!

ANN: (*Coolly*) Right, the first time! And he says they use math. in lots of places in the restaurant business.

BOB: Where?

ANN: Oh, in the buying end of it; and in figuring the income tax and the federal taxes of all sorts,—and the profit, if any!

BOB: But, gosh, Ann, that's just simple arithmetic! Ev'rybody's gotta be able to do that!

DICK: Oh, yeah?—Can you?

BOB: Well—no! But I can see some sense to learning *that*! It's algebra and geometry I'm agin!

ANN: But, Bob, you know we get all sorts of drill in arithmetic in all the math. classes, no matter what they are,



—and it's a lot more interesting to have it that way than it would be just to go over again the same stuff we had in the grades. You'll have to admit that!

TIM: Boy, she's got you there!

ANN: (*Hastily*) What about you, Dick? What are you going to do?

DICK: Well, I'd thought some of insurance.

BOB: There's no use arguing about that! You'll need all the math. you can get, if you're going anywhere in that!

JANE: Good for you, Robert, old scout! You'll really admit there's some good in studying math., after all!

BOB: (*Magnanimously*) Oh, sure, it's all right for anybody that really needs it!

DICK: I'm sorta interested in engineering, too. Only, I'm not sure yet just what kind, so I've been talking to some people around town, to try to get a line on things.

JANE: Didn't the engineers at the Public Service Company tell you they used formulas and graphs a lot?

DICK: Yeah,—all the time, in connection with the gas supply.

ANN: And Mr. Nethercott said he'd send you some material, didn't he, Dick,—about civil engineering?

DICK: He said he'd show me some of the technical formulas they use in working with the water and sewage systems.

TIM: Well, well, it looks as if those old formulas had a use, after all!

ANN: Honest, Tim, you'd never believe all the different places they use math.!

DICK: Optometry, for instance! Mr. Hattstrom told me you need two years of algebra, one of geometry, and one of trigonometry, to go in for that.

JANE: And don't forget what Mr. Dickinson says! (*Hands him a statement*)

BOB: What Mr. Dickinson?

DICK: Mr. Kenneth Dickinson, the assistant director of the Bureau of Accident Prevention.

BOB: Now, don't tell me you're going to ring in any math. there! My brother's on the Safety Council, you know!

DICK: Well, then, old kid, just take a look at this! (*Hands Bob the statement*) He says they use formulas to determine the speed of a car from the skid marks left at the scene of an accident; and also, to determine the speed of a car from its stopping distance.

BOB: (*Perusing the statement*) Gosh, that's interesting, isn't it? I heard Ted talking about that one day, but it went over my head, then.

ANN: It's your turn, now, Bob. What's on your list?

BOB: Well, my Dad wants me to be a doctor, but I'm not very keen about it. I wouldn't have to use math., though, and I'd like that.

DICK: Wait a minute young feller, me lad! Ev'ry time I go into Dr. Kappos's office for my hay fever shots, I see all sorts of graphs around. There's one that shows the pollen count from day to day. She puts one over the other, so you can compare the seasons from year to year.

ANN: And don't you need chemistry for medicine, Bob? And I know you need math. for chemistry!

JANE: (*Excitedly*) And, Dick, what was that Mother was reading to us the other night, from Alexis Carrell's *Man the Unknown*?

DICK: It was how some Frenchman had discovered a formula you could use to tell how long it would take a wound to heal, if you knew the surface of the wound, its age, and the age of the person.

TIM: Whew, man, they've sure got you!

BOB: Well, I don't want to be a doctor, anyway. What I really want to go into is banking. And I suppose you're all primed for me there!

DICK: Boy, are we! We've got a letter from Mr. Tomlinson at the State Bank and Trust Company. I won't read all of it, but just listen to this last paragraph: (*Reads*) "Such studies as solid geometry, higher algebra, and trigonometry, if really mastered, are of invaluable

assistance in developing the powers of reasoning, which must daily be applied to problems and policies in which tables or formulas can not be used.—All hail, then, to the good old mathematics!"

BOB: Gosh! And that fellow really knows what he's talking about, too. Well, it'll have to be done, I guess, much as I hate it!—Ann, how about helping me with my math., until I get going again?

ANN: (*Stammering*) Why—well—

BOB: Oh, I know you get swell marks in math. Your mother always shows my mother your report cards!

ANN: Well—

MRS. B.: (*From the door*) Come, children, before the cocoa gets cold! Bob—Tim—

*Exit Bob and Tim.*

*Jane, Ann, and Dick silently shake hands and exit, singing "Down the Field the Blue and Orange."*

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