

# Graphing a Flag Hoist Transcript

- 1 Teacher: Um. Do we have some people who might be interested in explaining what  
2 one particular graph meant on how the flag would rise? Um, okay. Ashley?
- 3 Ashley: Um, graph F went all the way up, but no time.
- 4 Teacher: Okay. And...do you have anything else to say about it?
- 5 Ashley: It's not very realistic.
- 6 Teacher: Not very realistic.
- 7 Student (F): Which? Oh, that one.
- 8 Teacher: Okay. Um, what do people think about that? Do you agree or disagree with  
9 that? Um...Jesse Keist?
- 10 Jesse: I agree.
- 11 Teacher: Why?
- 12 Jesse: Because it shows that he like, he waited for a while, and then it went straight  
13 up and it didn't take any time to go [Inaudible]. There's no angle.
- 14 Teacher: Okay. Brian?
- 15 Brian: Um, well, I agree because it, it would be—
- 16 Teacher: Wait. Hold on, hold on a second. You guys [Inaudible] of listening is not to  
17 fidget. Not to say anything. Okay.
- 18 Brian: I agree because it would be really just difficult to do that because he's really  
19 small like me and so, um, probably the only way that he could do it would  
20 have to be like stay on top of the flagpole and then jump down like holding  
21 the rope and—
- 22 Student: It still takes time.
- 23 Teacher: OK, yeah. So let's think about that for a second. What if a guy climbs up to  
24 the top of the flagpole, hangs on to the rope and jumps off—
- 25 Student: It still takes time.
- 26 Teacher: —and just like pulls it straight down. Would it, the question is would it,  
27 would it be straight up even at that point. Um, John, what do you think?
- 28 John: Uh, it says it would have to be at the bottom and the top at the same time.

- 29 Teacher: It would...Pardon?
- 30 John: It says, oh, it [Inaudible] gotta be at the bottom and the top at the same time.
- 31 Teacher: Okay. And what's your conclusion with that?
- 32 John: Uh, it's not possible.
- 33 Teacher: It's not possible. So not only is it not realistic, but you're saying it's not  
34 possible.
- 35 Shaun: It's possible if you have a real long flag.
- 36 Lia: It still takes time!
- 37 Teacher: Oh, that's an...That's an interesting point. Are you guys with this  
38 conversation? Did you hear what Shaun said? Shaun, do you want to make  
39 that point again?
- 40 Shaun: If you have a real long flag and it's the length of the pole then it's in both  
41 places at one time.
- 42 Teacher: What do people think about that idea?
- 43 Student: What?
- 44 Teacher: Can, can someone rephrase what Shaun said in a different way that might  
45 help clarify it for people who didn't understand? Speak up.
- 46 Jennifer: But if the flag, it didn't have to go a far distance [Inaudible].
- 47 Anthony: But it'd still take time!
- 48 Jennifer: Or if the flag was really long.
- 49 Teacher: Uh huh, go ahead. Rephrase what he said [Inaudible].
- 50 Jesse: If the like—
- 51 Teacher: Speak up.
- 52 Jesse: If the flag was like as long as the pole it would be like—
- 53 Teacher: Okay. Anthony, do you understand what Jesse said?
- 54 Anthony: No.
- 55 Teacher: If the flag was so big that it already was the whole length of the pole, then I  
56 think what Shaun's saying, correct me if I'm wrong, is that it wouldn't, you  
57 wouldn't have to hoist it at all because it, it would already be up.
- 58 Anthony: I've never seen a flag that big.

59 Teacher: Right, so. Although, I don't...Has anyone ever seen a flag that big?

60 Teresa: No.

61 Teacher: No, but I guess it would—

62 Student: It depends on the pole.

63 Teacher: Yeah, I guess it, it also depends on how big the pole...Yeah, so. That's a,  
64 that's a good point. Alright. Um, what about C? Did anyone have a  
65 description for C?

66 Student: I did.

67 Teacher: Hands up, please. Description for C.

68 Student: I said that was real.

69 Teacher: Okay, Nelson?

70 Nelson: It means that you like pulled real hard, then you slowed down, like, jerking  
71 it up kinda.

72 Anthony: Yeah, yeah, that's, that's the right way.

73 Teacher: Do people agree or disagree with Nelson? Hands up. Hands up. Anthony?

74 Anthony: I agree because you can't just pull it and then pull it, pull it, pull it,  
75 That'd take too much strength. Just pull it, stop, pull it, pull it, pull it. You  
76 know what I'm saying?

77 Teacher: Yeah. So is what you're saying that you think...Is what you're saying is that  
78 you think c is the most realistic one?

79 Anthony: Yeah.

80 Teacher: Yeah? Um, uh, Rebecca, what do you think about what Anthony's saying?

81 Rebecca: I agree with him. Cause, I mean, nobody can just take hold of the pole and  
82 just push it down and all of a sudden the flag will go all the way up. It takes  
83 [Inaudible] time. You have to pull it, stop. [Inaudible]

84 Teacher: OK, Catherine?

85 Catherine: I was going to say I agree with Anthony too, because when you pull it, on  
86 the rope you have to pull like this [motioning] and you can't just like never  
87 stop like that.

88 Teacher: OK. Jennifer?

89 Jennifer: Well, um, I don't agree because when it shows the flag, it shows it go up and  
90 then it stays the same. It, um, the flag stays but the time moves a little and  
91 then it goes up again. And so it's saying that you have, he like leaves time in  
92 between instead, instead of just moving.

93 Student: There's a little time in between.

94 Teacher: What? Hands up because we have some good points here. Hands up. Uh  
95 huh?

96 Nelson: Between each like pull there's like time.

97 Teacher: What do you think of that, Jennifer?

98 Jennifer: Well, no because it keeps going like this, and it keeps moving.

99 Teacher: So Jennifer, Jennifer is saying that maybe—

100 Jennifer: A

101 Teacher: —A is the most realistic 'cause you could pull at a constant rate. Garrett?

102 Garrett: I agree with that 'cause—

103 Teacher: One at a time please.

104 Garret: Cause there wouldn't be any stop. You'd pull down, stop, put your hand on the  
105 top, pull down. You'd kinda, like, when you're bringing it down you'd put your  
106 other hand up so it'd just constantly just keep on going.

107 Teacher: OK.

108 Garret: You wouldn't jerk it up.

109 Teacher: Okay. Um, which—

110 Student: Talk about jerking.

111 Teacher: Which graph—

112 Student: I think C is right.

113 Teacher: Which graph would represent someone who started pulling really fast and then  
114 got tired? And then maybe—

115 Students: B

116 Teacher: —and got a little tired, and pulled a little slower. Raise your hands. Raise your  
117 hands.

118 Justin: B

119 Teacher: Um, who haven't I called on yet...Robin?

120 Robin: B because it starts out really steep and then it sort of flattens out like it's  
121 [Inaudible].

122 Teacher: OK. What do people think about what Robin said? Jesse Keist?

123 Jesse: I agree with Robin.

124 Teacher: For the same reasons?

125 Jesse: Yeah.

126 Teacher: OK, Ashley?

127 Ashley: I agree with him 'cause it starts out the same and just takes a long time to get up.

128 Mr. Louis: OK. Um, OK. Before we move on I have two things to say. The first thing I  
129 have to say is that, um, I am very proud of you guys for how you listened to  
130 what other people said and you were able to comment about it.