

Launching a Task

- 1 CORI MORAN: All right. So welcome, guys. So today we're going to be starting
2 kind of a new unit today. So with that idea here, we want to kind of
3 start with a task to really kind of see what's happening. What are
4 some patterns that we can notice with this, so that we can really
5 compare them to what we already know and really kind of see what
6 we can build on from there. All right, so looking at this problem
7 here, just take a second. Don't say anything right away.
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- 9 NYLEAH: And then now we're just going to draw it out in order to solve--
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- 11 CORI MORAN: All right, so I'm hearing some pattern. Nyleah, would you mind
12 sharing what you were just discussing?
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- 14 NYLEAH: Yeah, so each stage has the bottom of it, it's one, two, three, and
15 four. So I was thinking for stage five, it'd be five, but then it also
16 goes up by the same amount. So I think it would go five up. But
17 then, if you're going down the stairs, it's still going down the stairs,
18 like, by one too. So it'll be five, like five--
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- 20 STUDENT: Five, four, three, two, one.
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- 22 NYLEAH: Yeah, five across, five going up and down, and then five going
23 down the stairs so then it would be like a whole 15.
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- 25 CORI MORAN: All right, awesome. Any other notices there? Eli, you agree with
26 her?
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- 28 ELI: Yeah, I sure did.
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- 30 CORI MORAN: Did you want to add anything?
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- 32 ELI: Well, yeah. Yeah, every time, like, the bottom layer goes up by
33 another one, so like if it was-- like in the equation, $x + 5$ would have
34 the five boxes on the bottom and then $x + 6$ would have six on the
35 bottom, and increasing, so on.
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- 37 CORI MORAN: So was that the same or different from what Nyleah was saying?
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- 39 ELI: The same.
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- 41 CORI MORAN: The same?
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- 43 ELI: Yeah.
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- 45 STUDENT: It's different. You're saying, yeah, so each stage, the number of the
46 stage is how many blocks you're adding. So stage three, you add

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47 three blocks. Stage four, you add four blocks. Stage two, you add
48 two blocks. So stage five, you just add five blocks, too. You're
49 adding the same amount of blocks.
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51 CORI MORAN: Nyleah, could you repeat what you were saying?
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53 NYLEAH: On ten. I was saying that each stage is the amount of how many
54 should be on the bottom and up and down.
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56 CORI MORAN: OK.
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58 NYLEAH: Like going down the stairs too.
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60 CORI MORAN: And going down the stairs, too. So you were kind of highlighting
61 that the same number is on the lower--
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63 NYLEAH: Yeah.
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65 CORI MORAN: --and the same number is up.
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67 NYLEAH: Yeah.
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69 CORI MORAN: And then it's also down the stairs as well.
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71 NYLEAH: Because if you see on stage four, there's four going across.
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73 CORI MORAN: Could you draw it up there?
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75 NYLEAH: So I was saying like how there's-- so, when there's four here, right?
76 So then I was saying that the-- depending on the stage, that's how
77 many there should be. But then, if you don't really count this, then
78 there's four here, too. And then there's four right here. So then I was
79 saying for the next stage it'd be five, and then it'll be five up, and
80 then it'll be five down. That's what I was saying.
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82 CORI MORAN: What are you guys noticing about Nyleah's pattern here?
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84 STUDENT: Whatever the stage is, is how long the lengths are on all sides.
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86 CORI MORAN: The length here and the-- what would you call this here, then,
87 maybe?
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89 STUDENTS: Height.
90 CORI MORAN: The height? So that you have the height here and you have the
91 length here? And that's the same for this one, and the same for this
92 one.

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- 93
- 94 STUDENT: You should get the picture that you know how many blocks should
95 be on those sides.
- 96
- 97 CORI MORAN: So those are some of those patterns that you are going to actually get
98 to explain and describe with your group, OK.