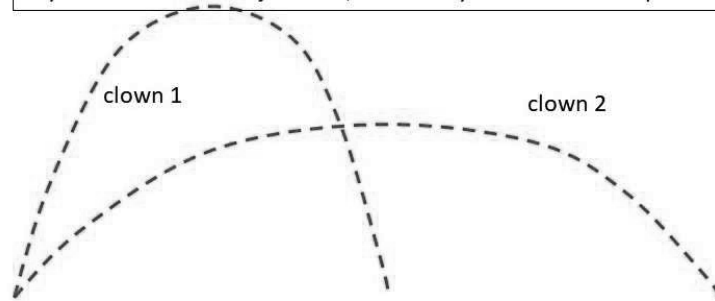


## For the following questions:

---

In a circus act, two clowns are launched from the same location  
(ignore air resistance)  
Pay attention to the trajectories, and what you're told in the question...



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**The two clowns are launched as shown. Which clown has the higher initial vertical velocity?**

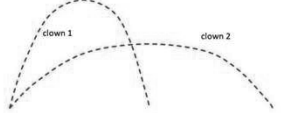

① Start presenting to display the poll results on this slide.  
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49

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Active poll 271

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The two clowns are launched as shown. Which clown has the higher initial vertical velocity?

Clown 1  132

Clown 2  3

They have the same initial vertical velocities  7

We can't tell  129

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**Now the clowns are launched as shown, with the same initial speed. Which clown arrives first back to the ground?**

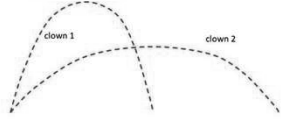
① Start presenting to display the poll results on this slide.  
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Active poll 317



**Now the clowns are launched as shown, with the same initial speed. Which clown arrives first back to the ground?**

Clown 1 24

Clown 2 208

They arrive at the same time 67

We can't tell 18

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**Now the clowns are launched with different initial speeds, and as shown in the diagram. Which clown arrives first?**

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**#3264 364**



Active poll 295

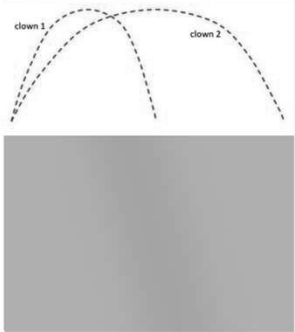
Now the clowns are launched with different initial speeds, and as shown in the diagram. Which clown arrives first?

Clown 1 53

Clown 2 14

They arrive simultaneously 172

We can't tell 56



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54