

FLORIDA STATE UNIVERSITY

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Pep Talk

Thanks for taking part in our summer camp! We are now going to ask you 28 more questions about physics, kind of like the ones we asked you at the start of camp. We'll also ask you what you thought about the game. This is the most important part of the camp, because this is how we figure out if our game works at helping you learn physics in a fun way. Please try your best! And remember: there are prizes for the people who improve the most and score the highest on these questions!

IMI

Before we get to the physics questions, we want to know how you felt about the game. For each statement below, indicate how true that statement feels.

	Not at all true		Somewhat true		Very true
I tried very hard in the game.	<input type="radio"/>				
I did not feel frustrated at all while playing the game.	<input type="radio"/>				
This game was fun to play.	<input type="radio"/>				

	Not at all true		Somewhat true		Very true	
I felt very frustrated while playing the game.	<input type="radio"/>					
I think I did pretty well in the game compared to other students.	<input type="radio"/>					
I enjoyed playing the game very much	<input type="radio"/>					
I think I was pretty good at the game.	<input type="radio"/>					
I believe playing the game could be beneficial to me.	<input type="radio"/>					
I would describe the game as very interesting.	<input type="radio"/>					
I thought the game was boring.	<input type="radio"/>					
I was very relaxed while playing the game.	<input type="radio"/>					
I didn't put much energy into the game.	<input type="radio"/>					
I put a lot of effort into the game.	<input type="radio"/>					
The game did not hold my attention at all.	<input type="radio"/>					
I am satisfied with my performance in the game.	<input type="radio"/>					
I couldn't play the game very well.	<input type="radio"/>					
I would be willing to play the game again because it has some value to me.	<input type="radio"/>					
I didn't try very hard to do well in the game.	<input type="radio"/>					

Near Q1 EcT Lever 1

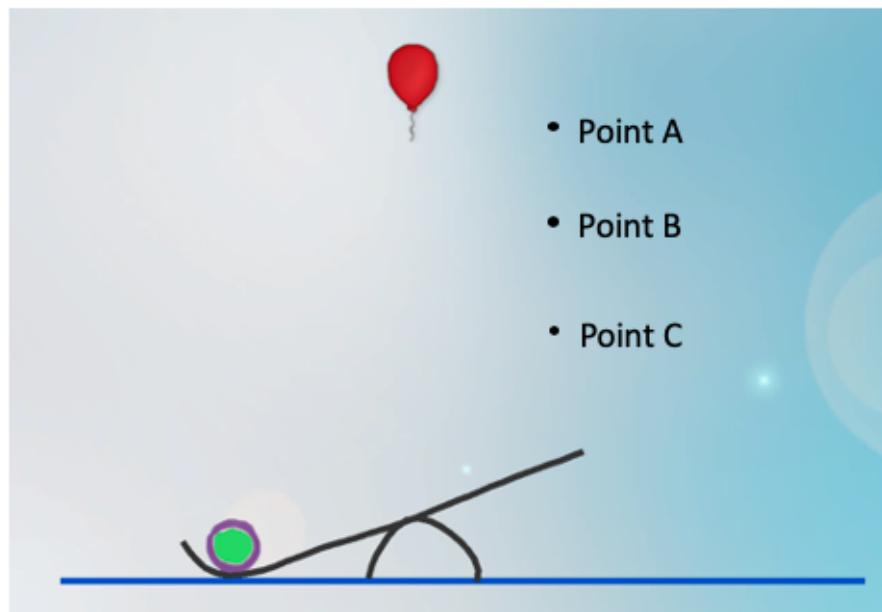
EcT Near Transfer Q1 formB



In this video, the black mass loses gravitational energy when the green ball:

- Gains gravitational potential energy.
- Loses gravitational potential energy.
- Loses kinetic energy.
- Gain elastic potential energy.

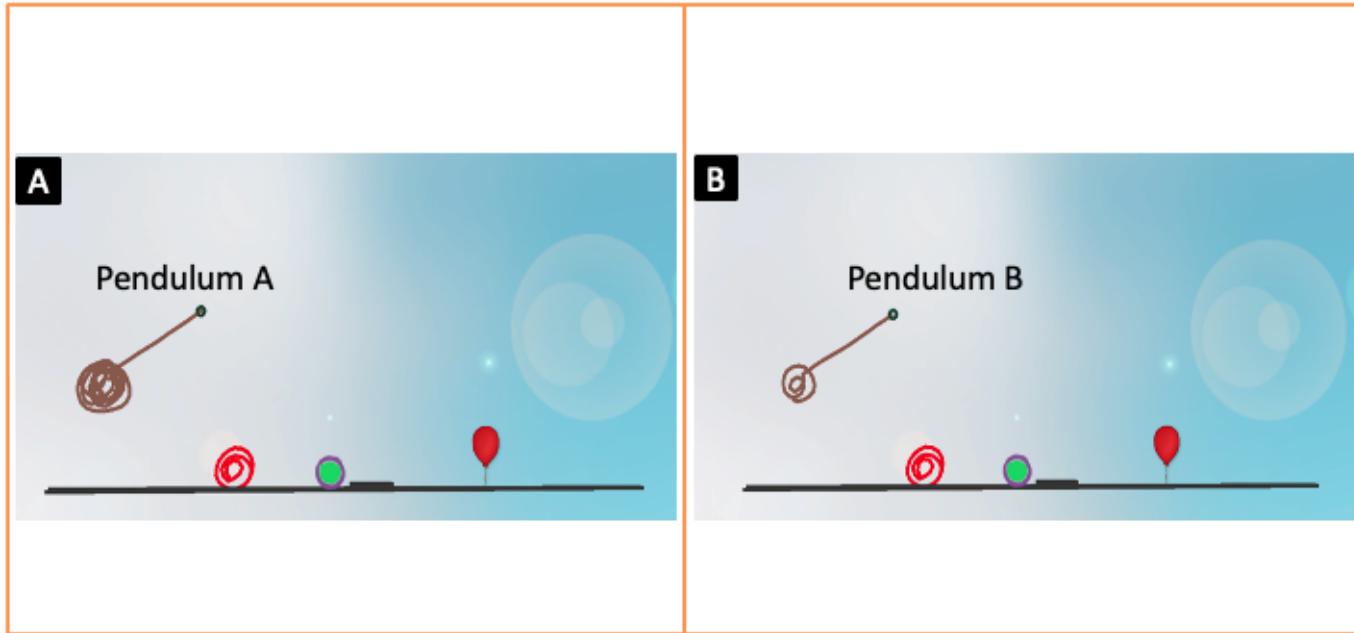
Near Q2 EcT-Lever 2



Where should you drop a weight so that the green ball can gain the *highest energy* possible to hit the balloon?

- All are the same
- A
- B
- C

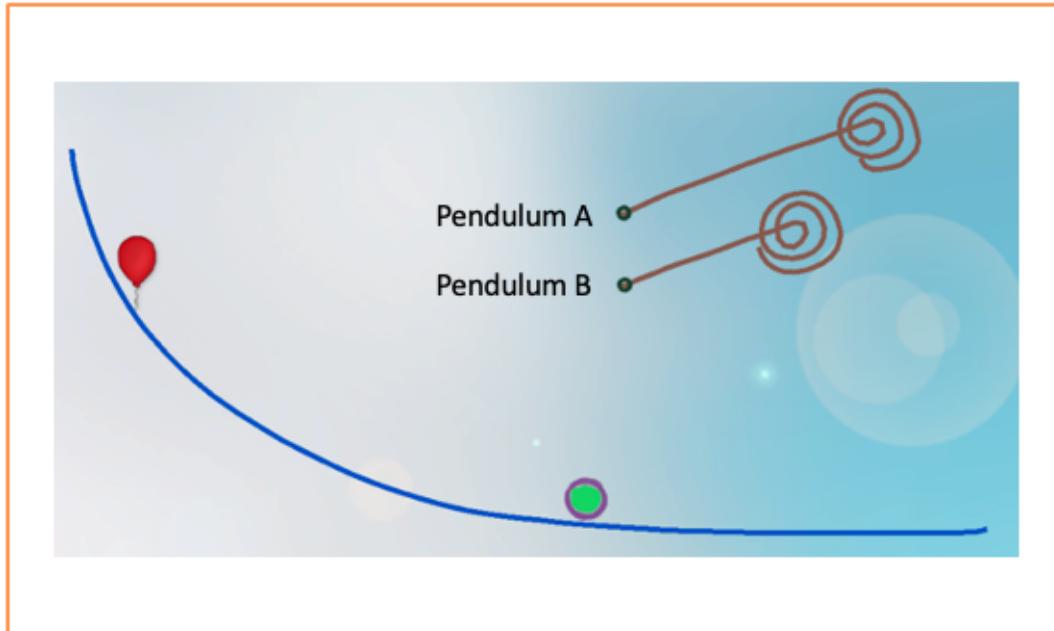
Near Q3 EcT-Pendulum 1



Which pendulum would you choose to push the green ball to the red balloon?

- A
- B
- Both will have the same effect on the ball
- Not enough information

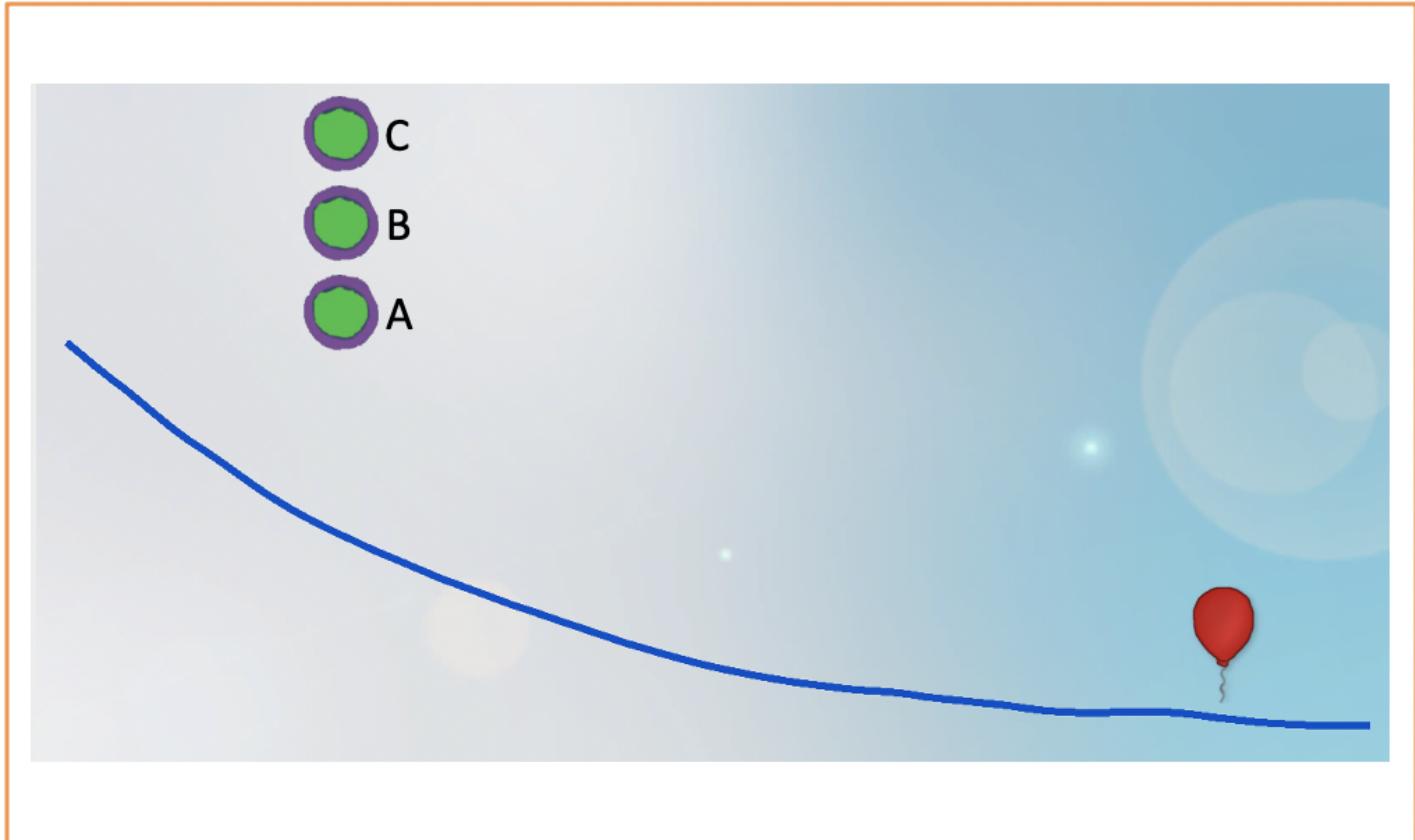
Near Q4 EcT-Pendulum 2



Both pendulums will hit the ball. Which pendulum is *less likely* to get the ball to the balloon?

- A
- B
- Both will have the same effect on the ball
- Not enough information

Near Q5 EcT-Ramp 1



A ball is dropped from each point shown above (A, B, C). When will the ball have the *slowest speed* as it hits the balloon?

- Dropped from point A
- Dropped from point B
- Dropped from point C
- No difference

Near Q6 EcT- Ramp 2

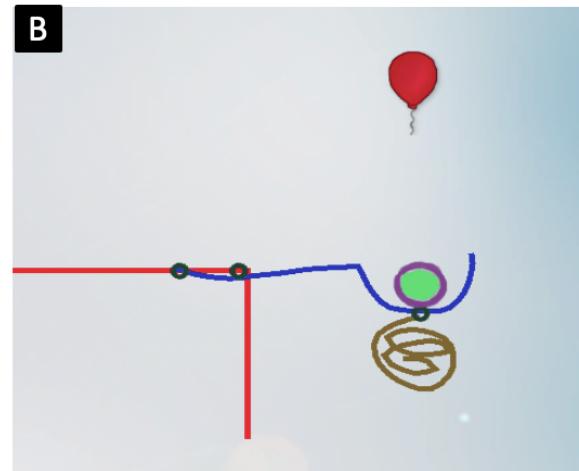
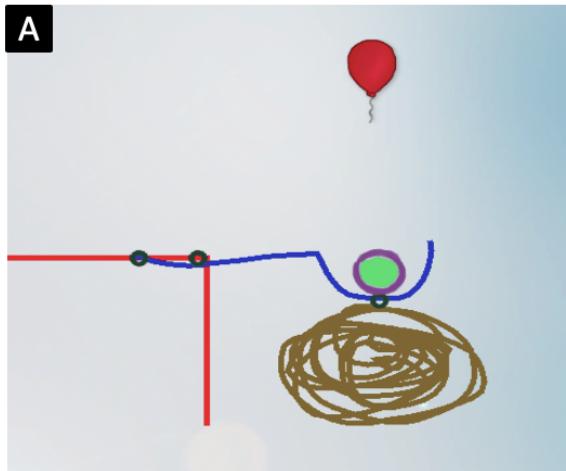
media6



Watch the video. What would make the green ball roll *faster*?

- Moving the black ball to a lower height
- Reducing the mass of the black ball
- Increasing the mass of the black ball
- None of the above

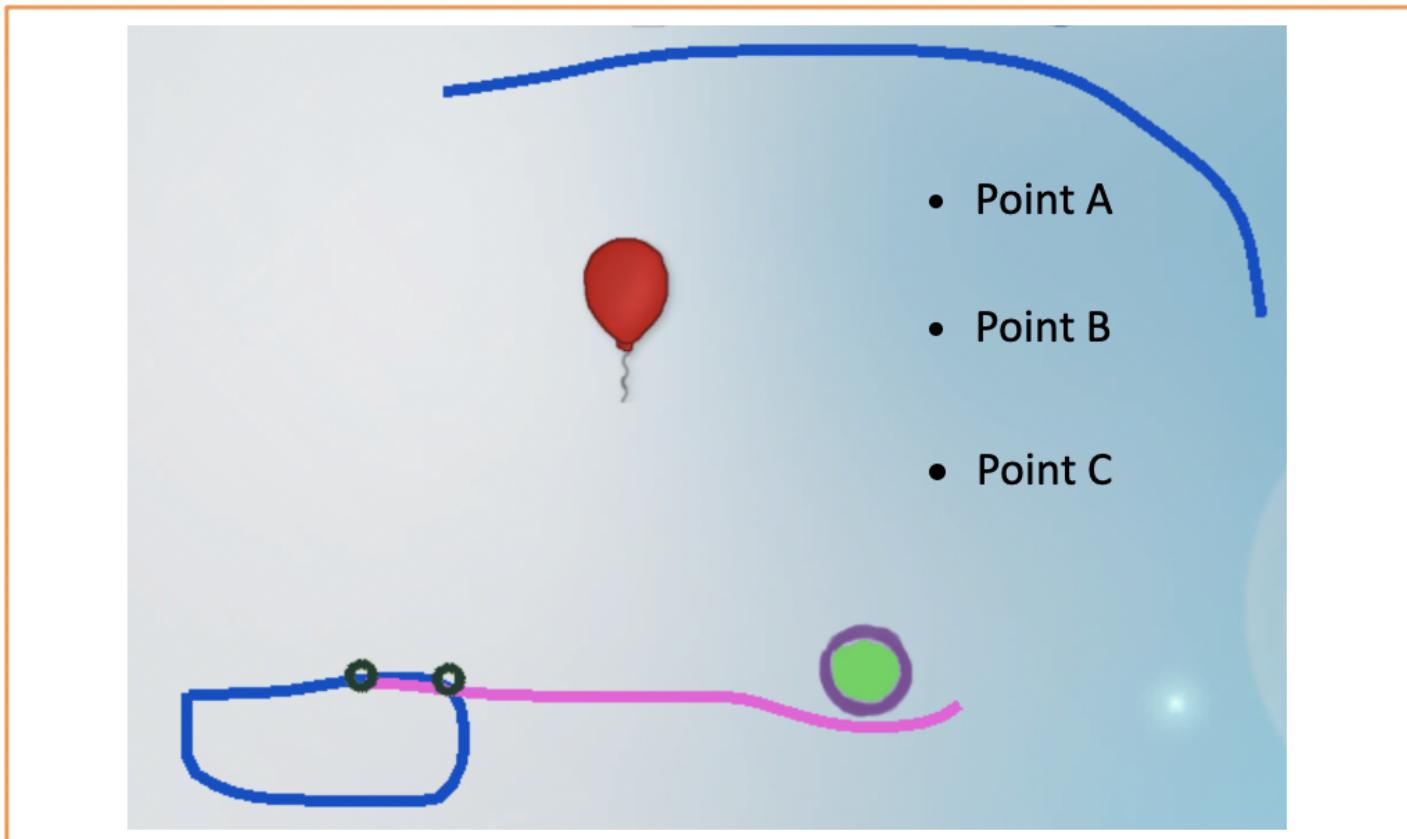
Near Q7 EcT-Springboard 1



Which ball is *more likely* to hit the balloon after releasing the weight?

- A
- B
- No difference
- Not enough information

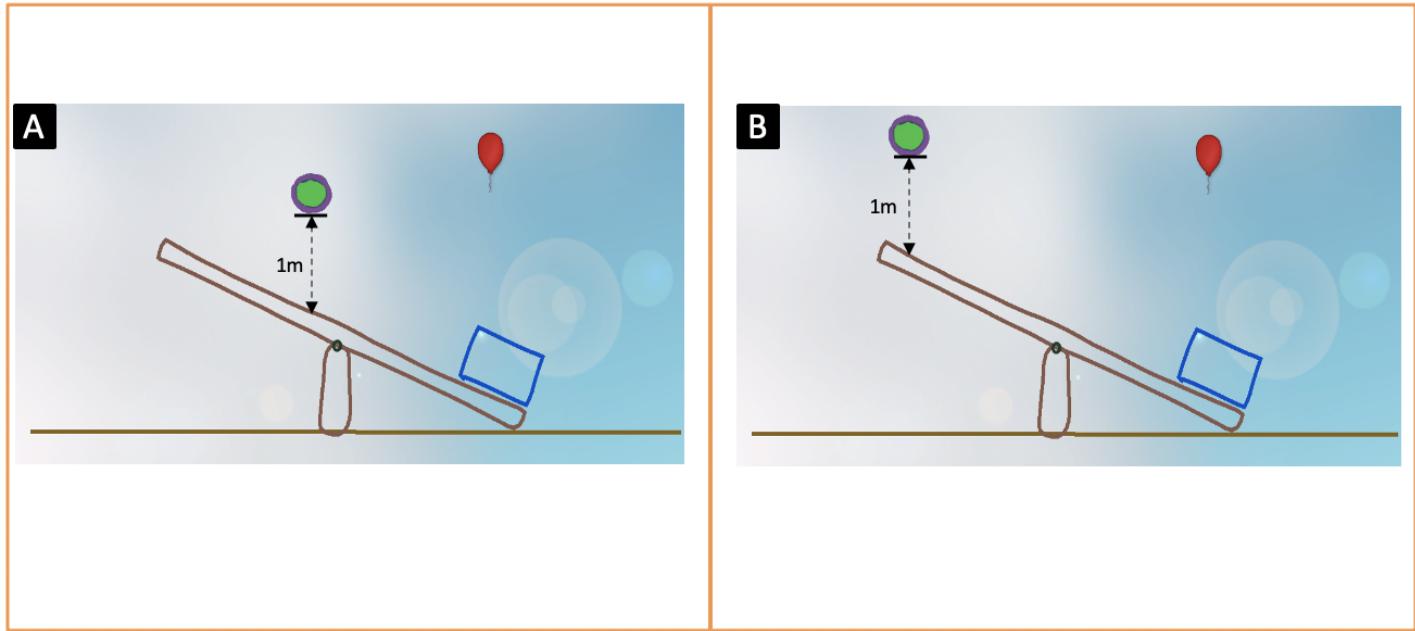
Near Q8 EcT-Springboard 2



If a mass is dropped from each point (A, B, C), what point is *less likely* to make the green ball hit the balloon?

- A
- B
- C
- All points will have the same effect on the ball

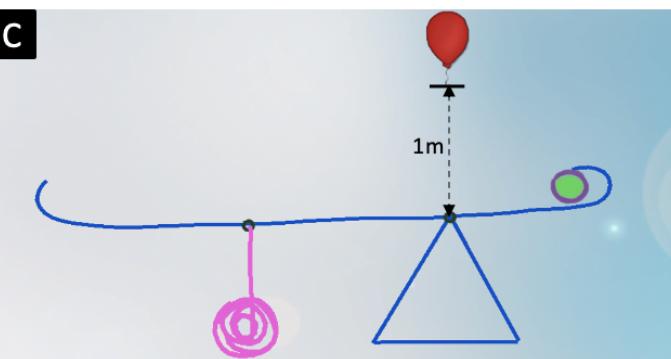
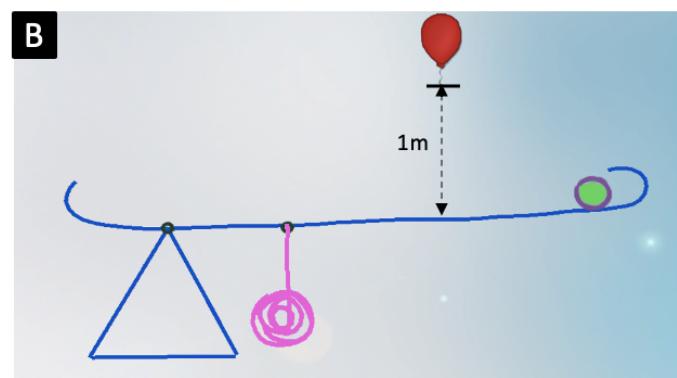
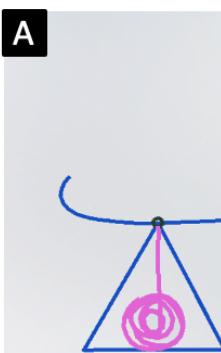
Near Q 9 PoT Lever-Distance 1



In which picture (A or B) will the blue box be launched higher when the green ball hits the lever?

- A
- B
- Both will reach the same height
- Not enough information

Near Q10 PoT-Lever-Distance 2



When the pink weight is added to the lever, in which picture will the green ball hit the balloon after the weight is released?

- a) A
- b) B
- c) C
- d) All would work

When the pink weight is added to the lever, in which picture will the green ball hit the balloon after the weight is released?

- A
- B
- C
- All would work

Near Q11 PoT-Lever-Mass 1

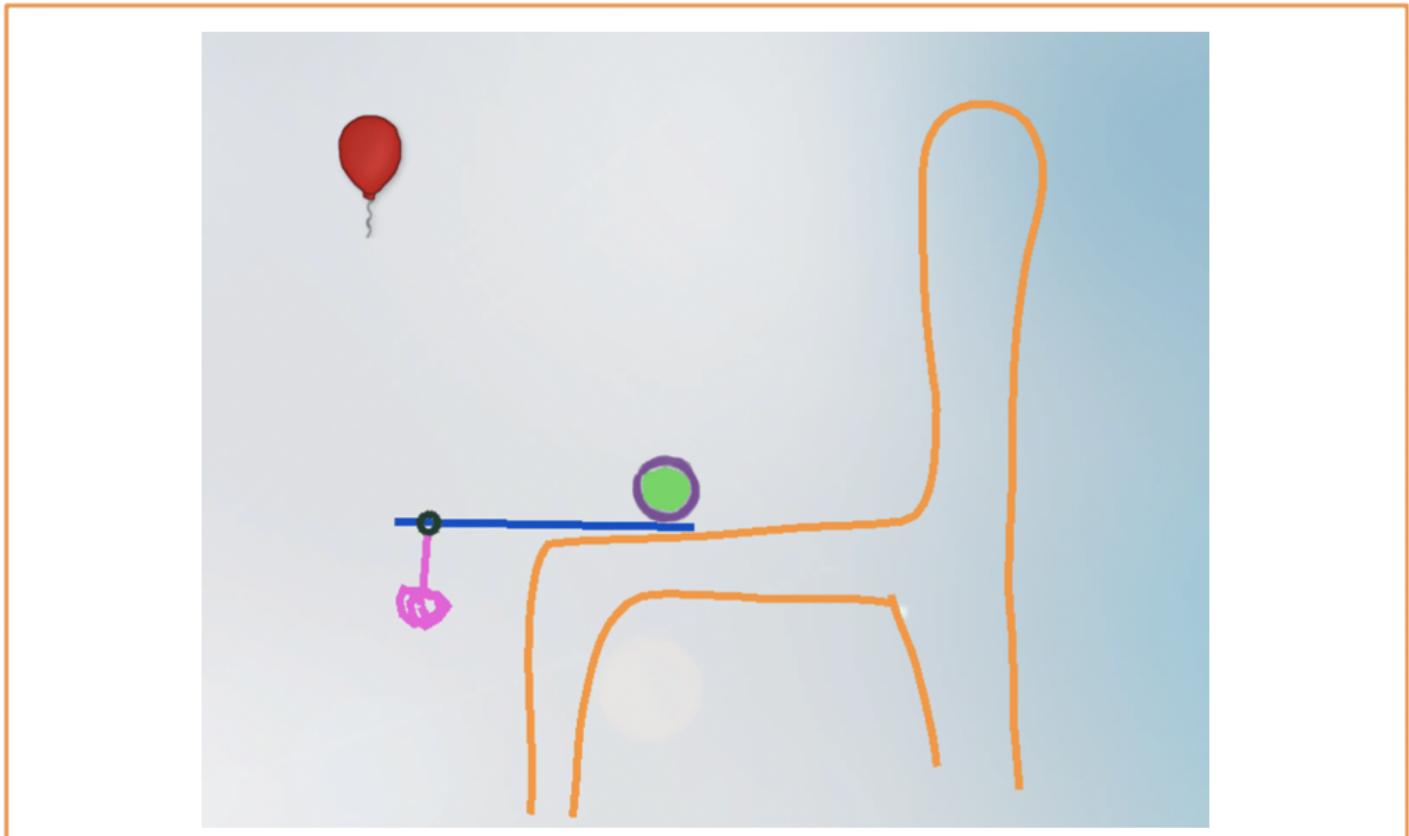
PoT Near Transfer Q11 formB



Watch the video. What would you change to get the green ball to the red balloon?

- Increase the pink ball's mass
- Decrease the the pink ball 's mass
- Increase the starting height of the pink ball
- Make the blue stick longer

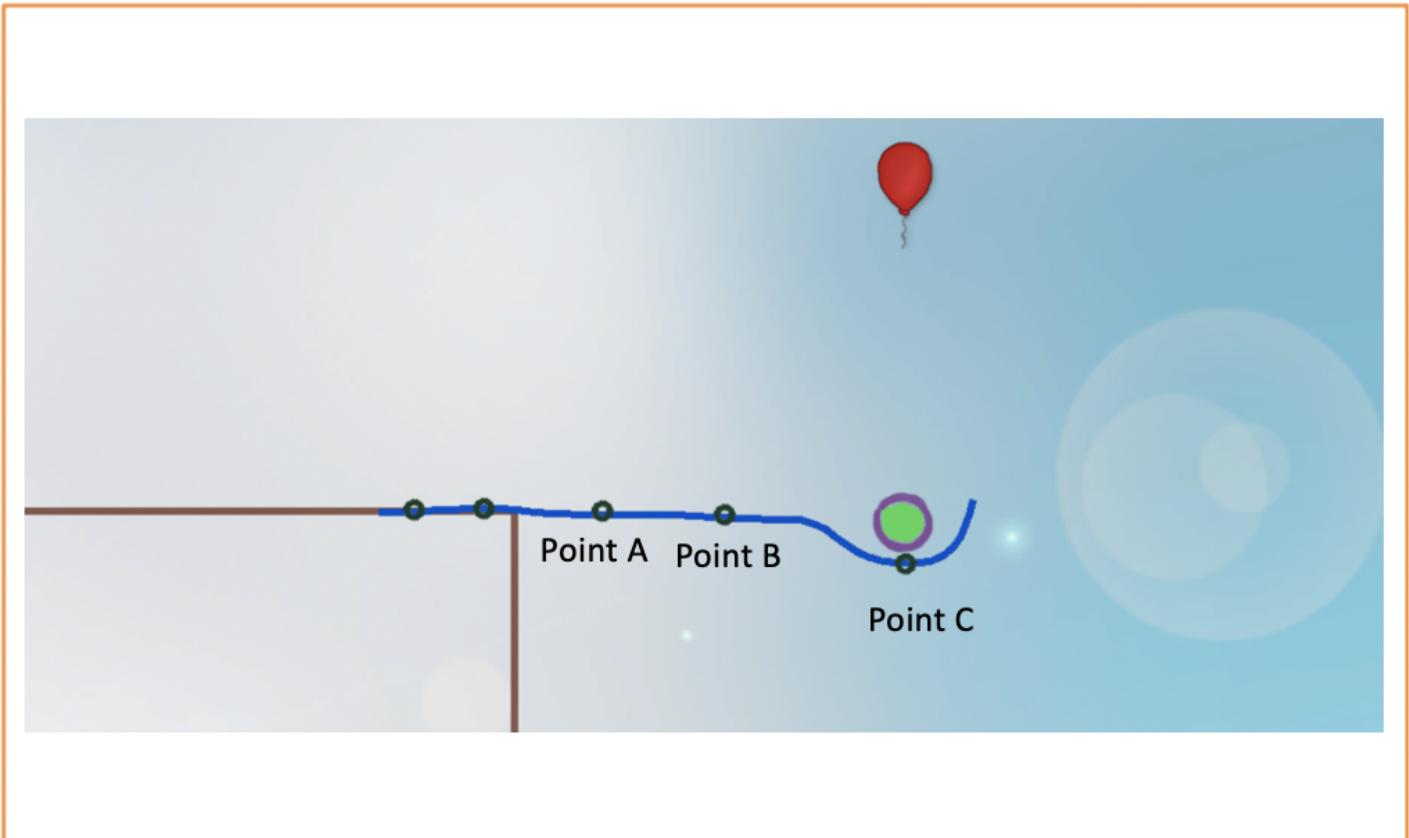
Near Q12 PoT-Lever-Mass 2



What would you change to make the green ball go *higher*?

- Decrease the pink weight's mass
- Increase the pink weight's mass
- Remove the pink weight
- Not enough information

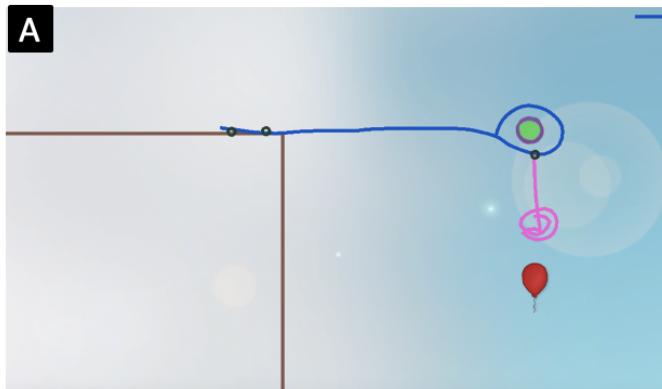
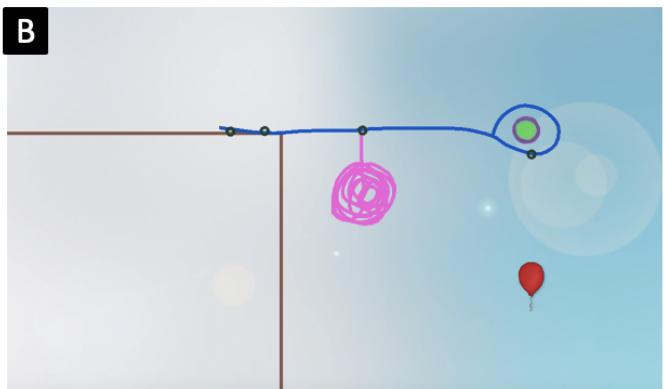
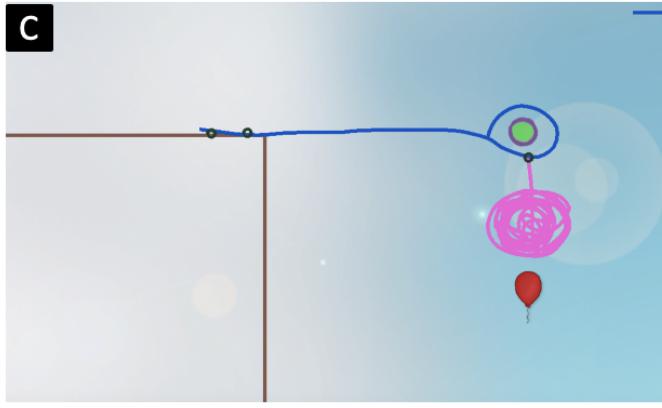
Near Q13 PoT-Springboard 1



Where should you attach a weight so the green ball is *more likely* to reach the balloon after releasing the attached weight?

- A
- B
- C
- All would work

Near Q14 PoT-Springboard 2

A**B****C**

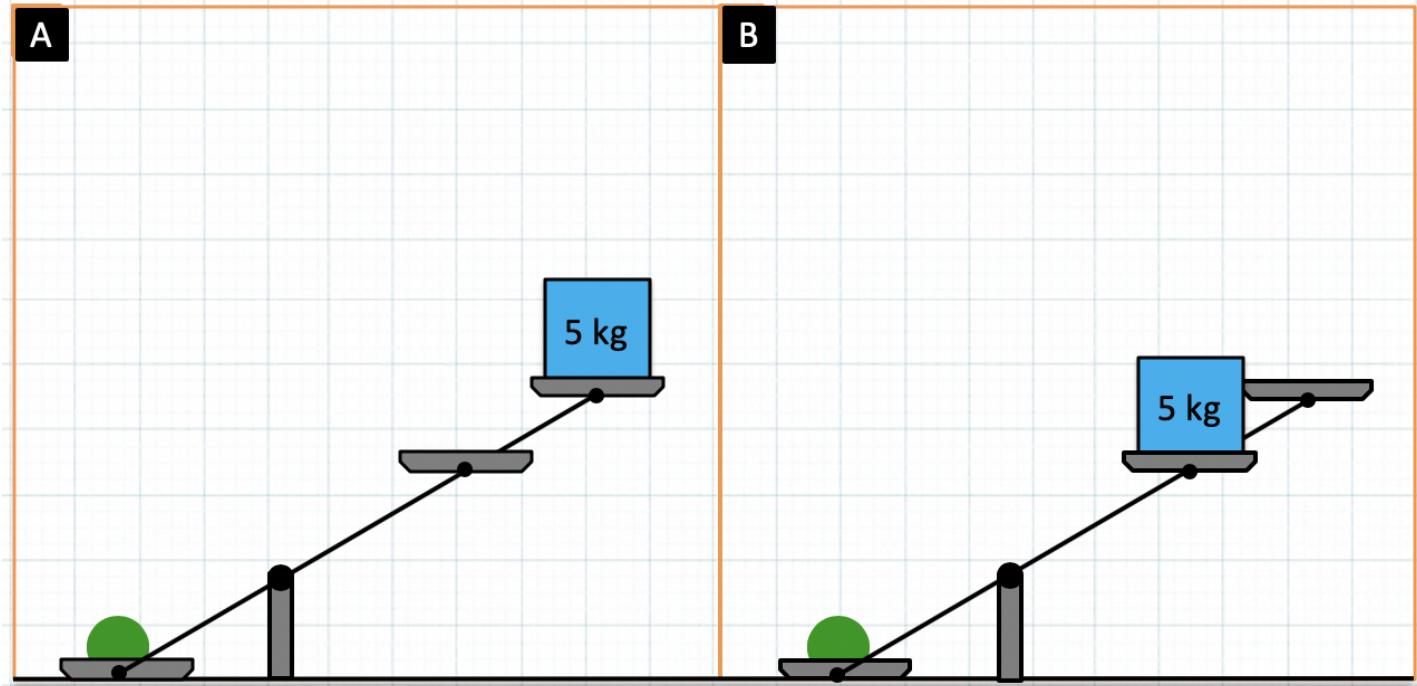
Which solution is *more likely* to get the ball to reach the balloon?

- a) A
- b) B
- c) C
- d) All would work

Which solution is *more likely* to get the ball to reach the balloon?

- A
- B
- C
- All would work

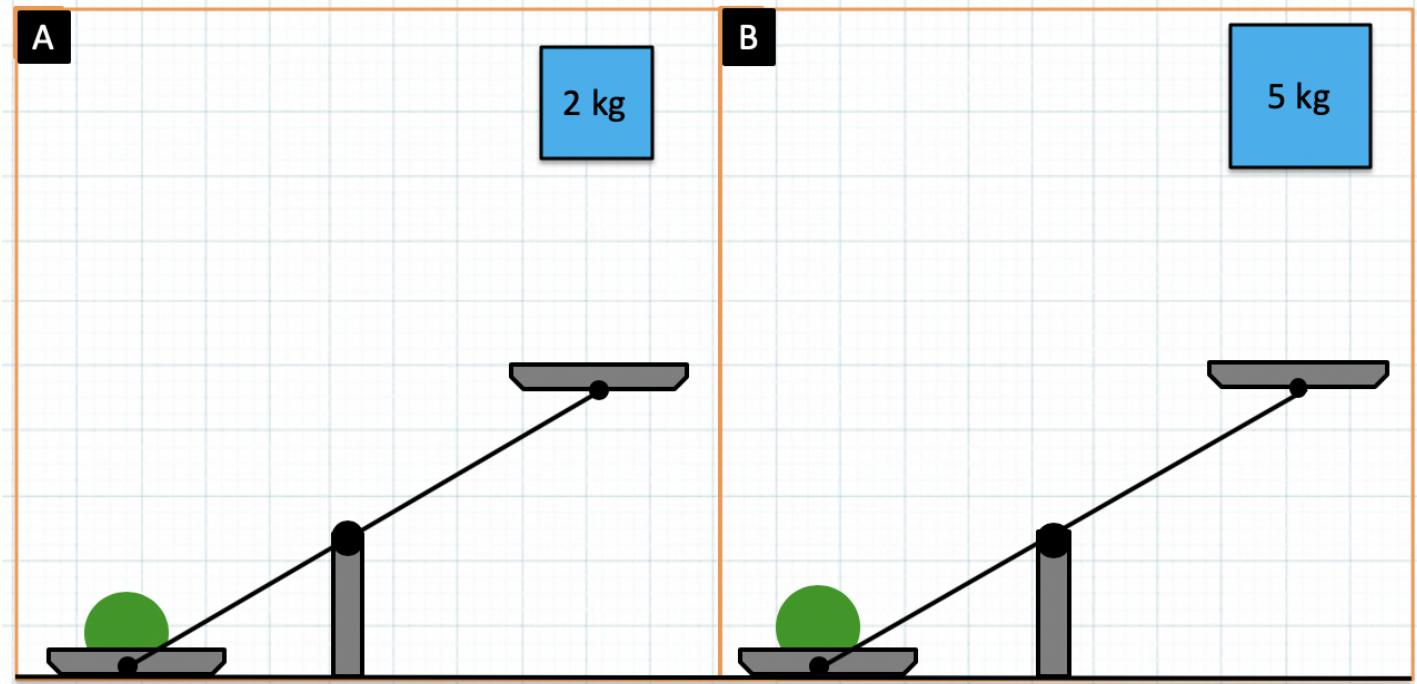
Far Q1 EcT-Lever 1



In Figures A and B, the two levers are identical. Which ball will be launched *higher*?

- The ball in picture A
- The ball in picture B
- The ball will be the same
- More information is needed to answer the question

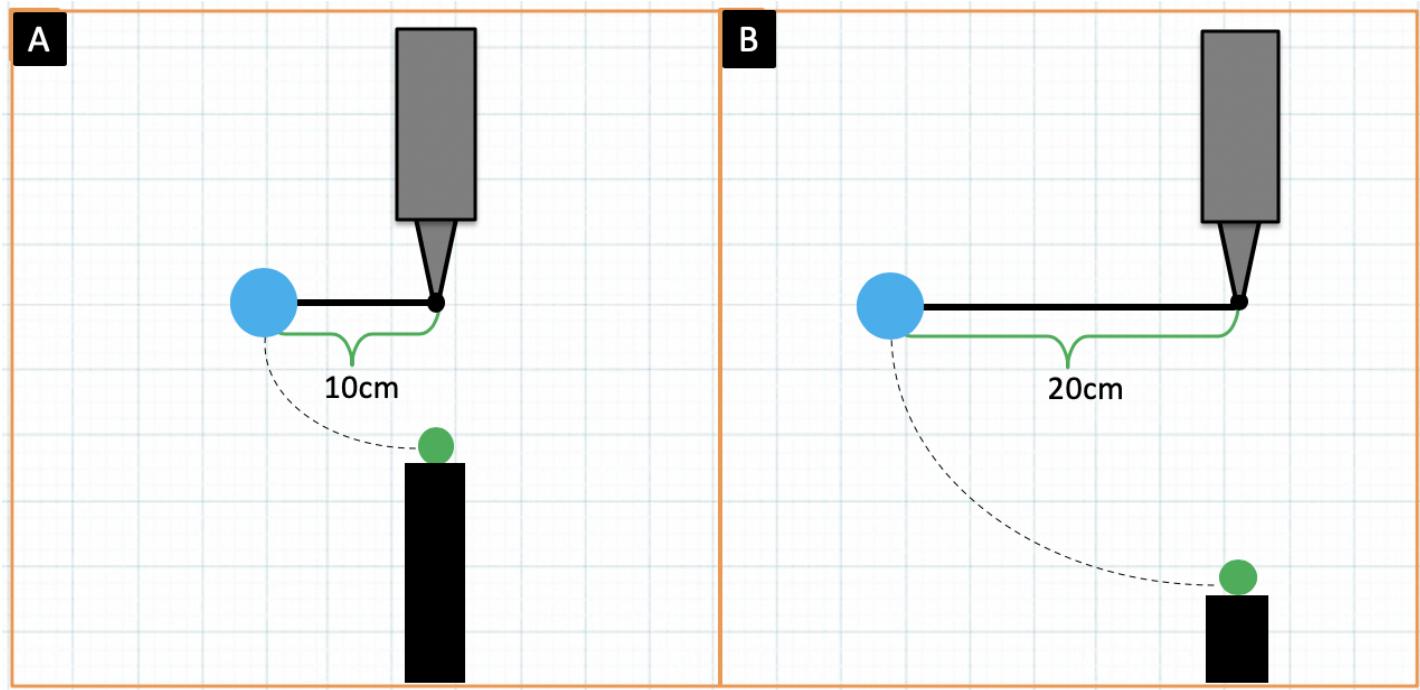
Far Q2 EcT-Lever 2



In Figures A and B, the two levers are identical. Two objects of different mass are being dropped from the same height. Which ball will rise *faster* when it leaves the plate?

- A will rise faster than B.
- B will rise faster than A.
- A and B will rise at the same speed.
- More information is needed to answer the question.

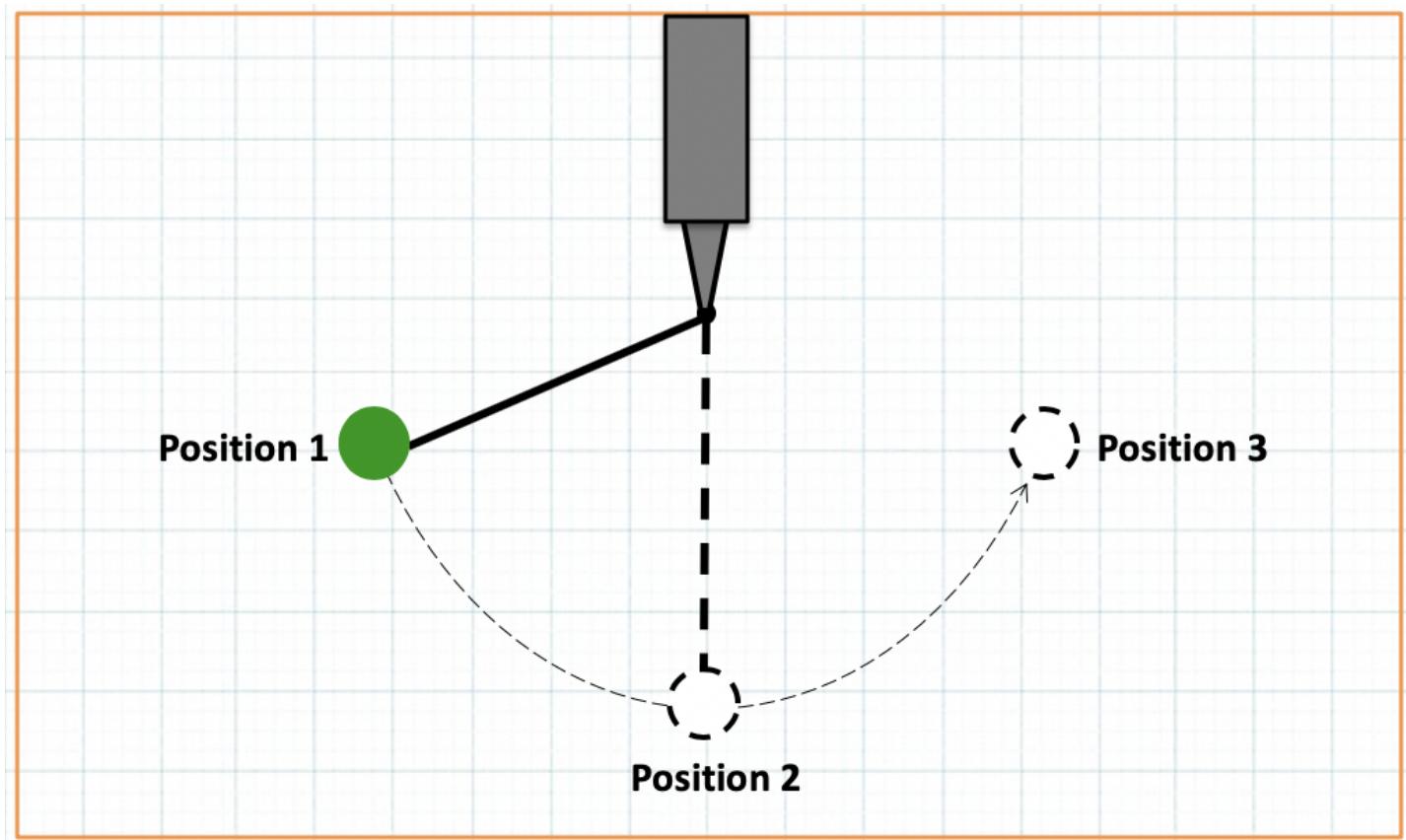
Far Q3 EcT-Pendulum 1



In Figures A and B, the pendulums have different lengths but the same mass. Which pendulum will have the greater speed *just before* it impacts the green ball?

- A will be faster than B because the length of Pendulum A is shorter than B.
- A and B will move at the same speed because both balls have the same mass.
- B will be faster than A because the length of Pendulum B is longer than A.
- More information is needed to answer the question.

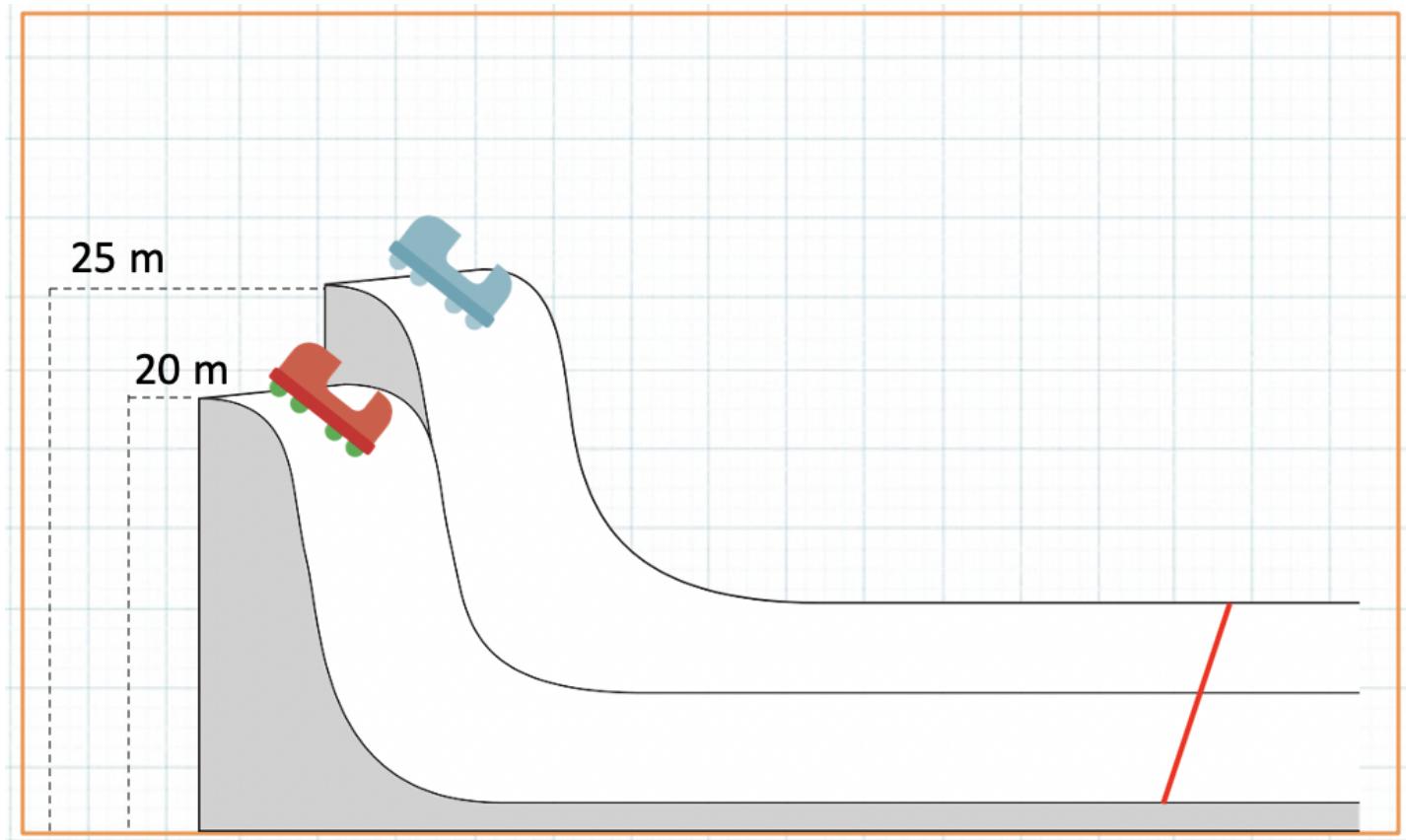
Far Q4 EcT-Pendulum 2



The pendulum swings from Position 1, passes Position 2, and arrives at Position 3. If we use a lighter ball, what is the *highest point* it will reach on its swing?

- Position 2
- Position 3
- Somewhere between Position 2 and Position 3
- Somewhere above Position 3

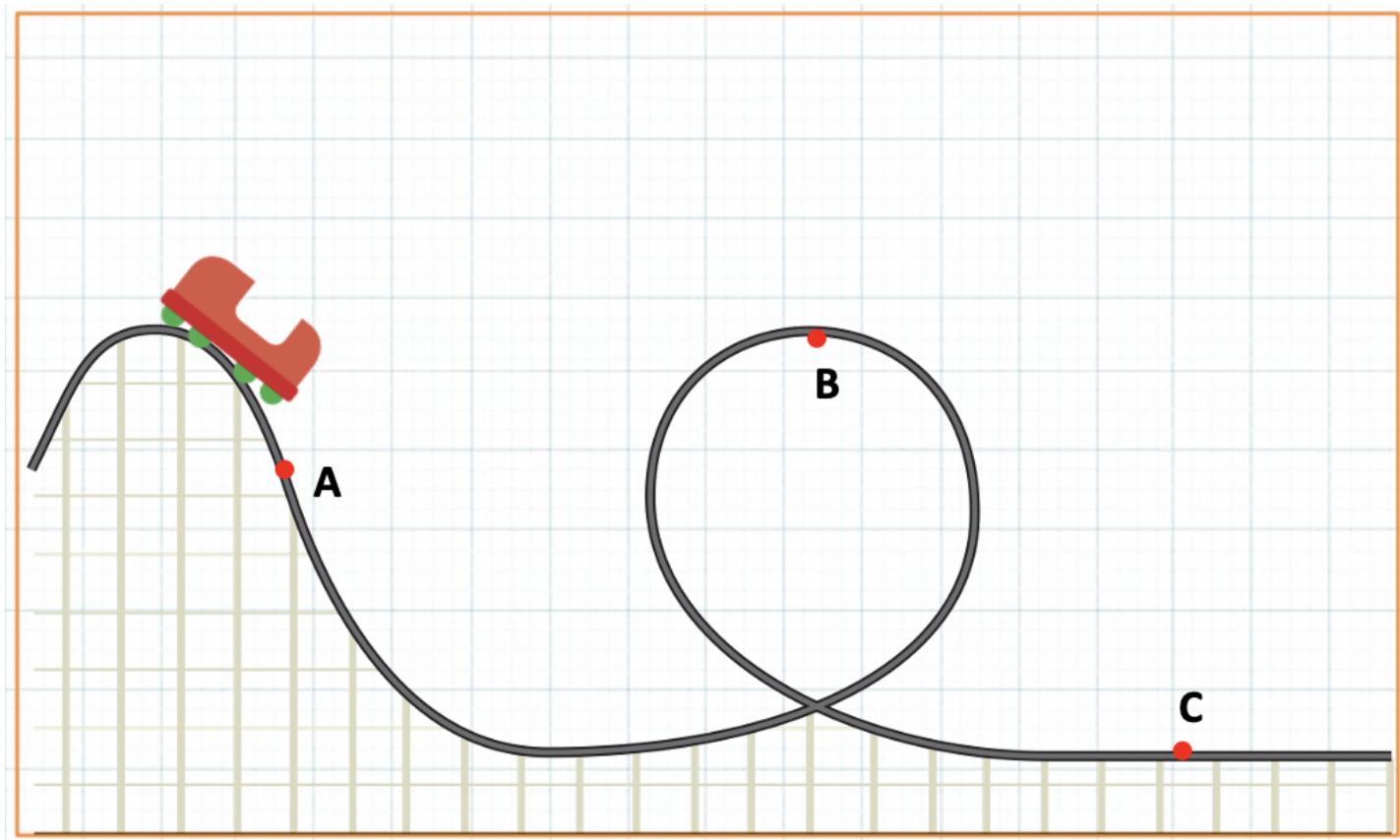
Far Q5 EcT-Ramp 1



Two identical carts are rolling down the ramp. Which cart will have *less speed* at the red line?

- The red cart
- The blue cart
- Both will have the same speed
- More information is needed

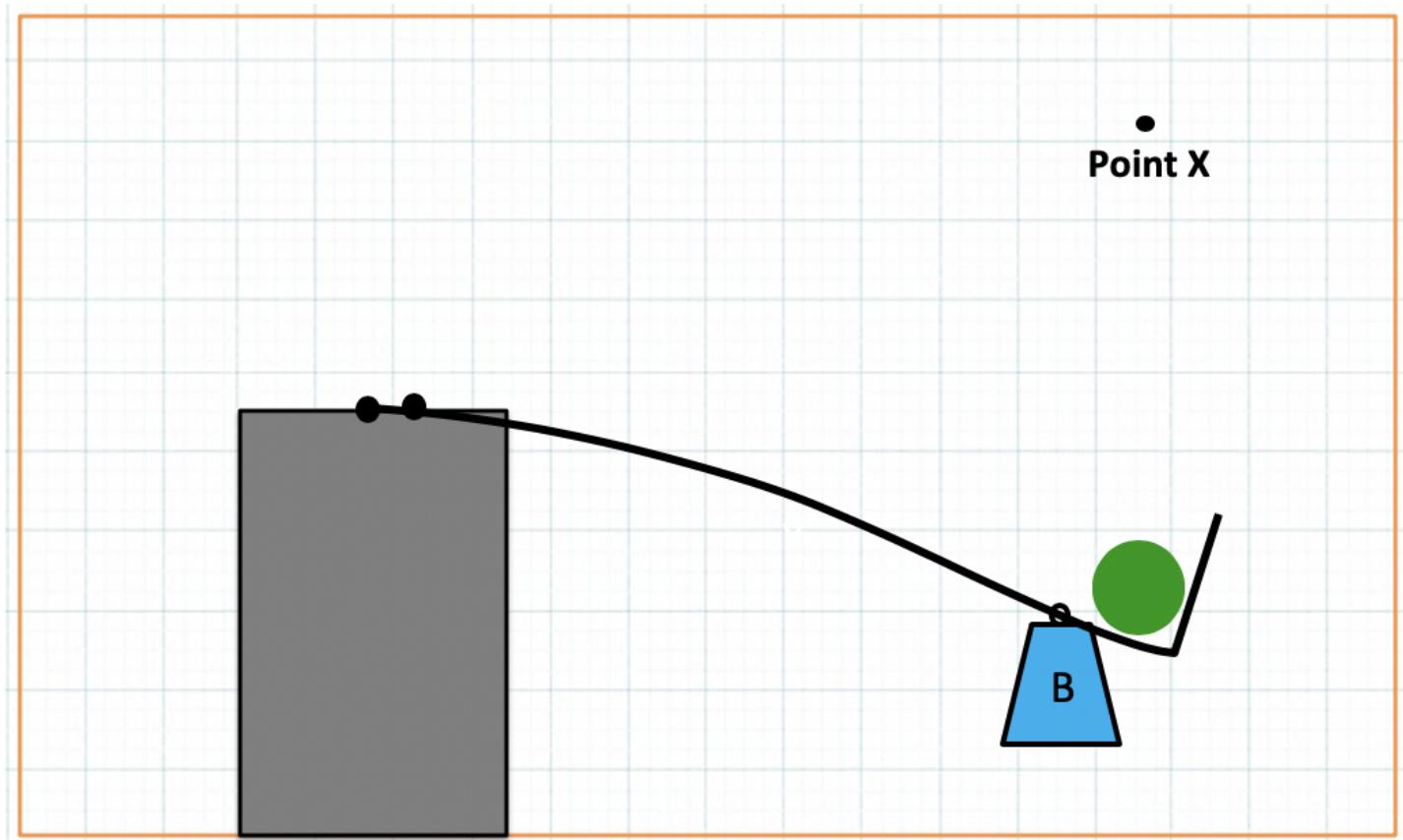
Far Q6 EcT-Ramp 2



The cart rolls down a frictionless rollercoaster. Its kinetic energy is _____.

- greatest at A
- greatest at B
- greatest at C
- always constant

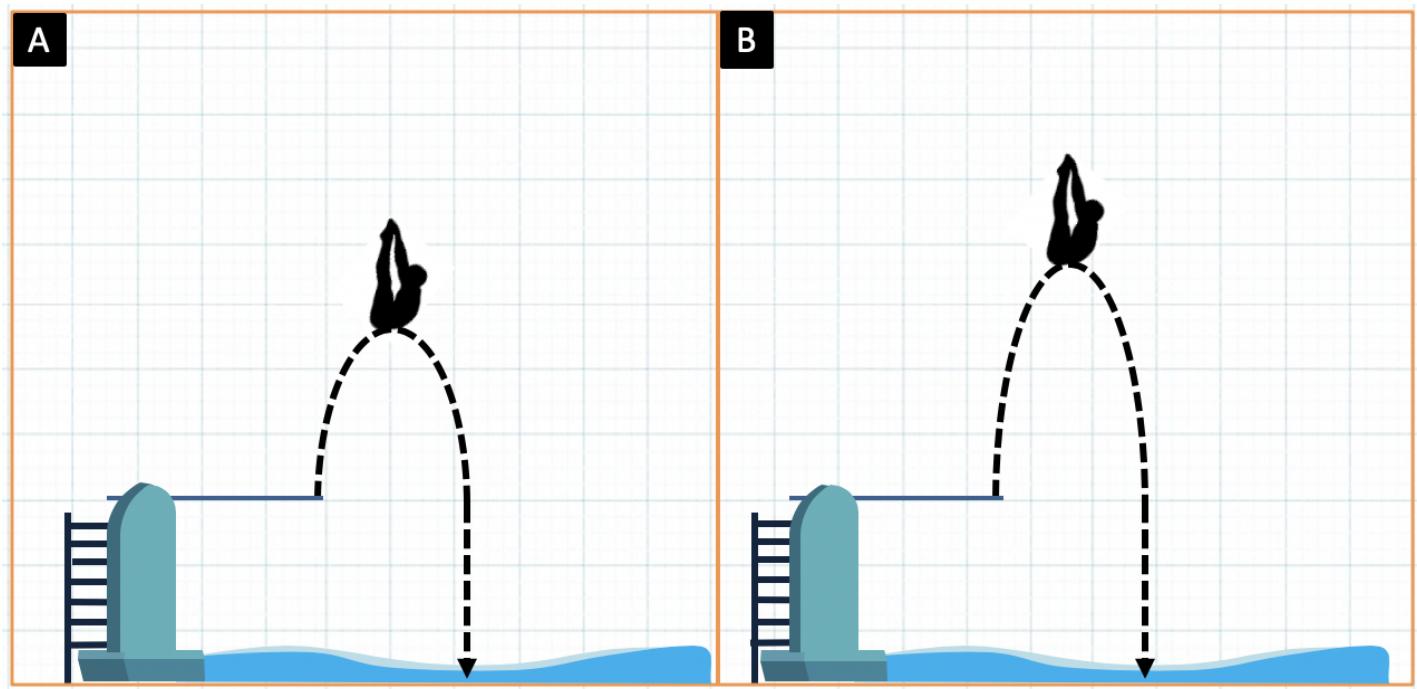
Far Q7 EcT-Springboard 1



A springboard is bent down by weight B. When the weight is released, the green ball flies up into the air to point X. What would make the green ball fly *higher* than point X?

- More information is needed to answer the question
- Increase the mass of the ball
- Decrease the mass of weight B
- Decrease the mass of the ball

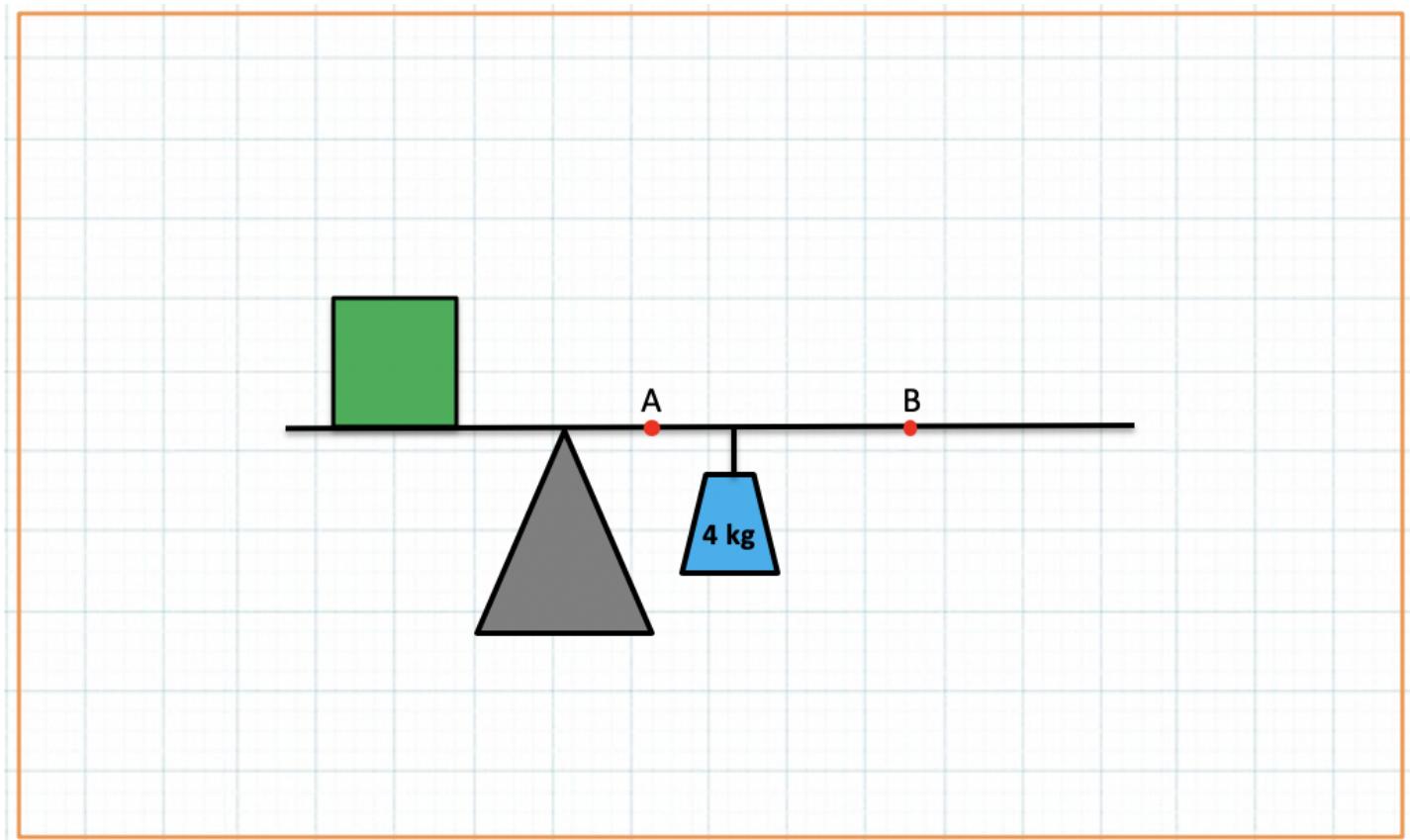
Far Q8 EcT-Springboard 2



Jeremy dove twice from a springboard. The second dive he jumped higher than the first dive. Which dive bent the board *more*?

- Both dives bent the board the same amount.
- The first dive bent the board more than the second dive.
- The second dive bent the board more than the first dive.
- We don't know because he already jumped.

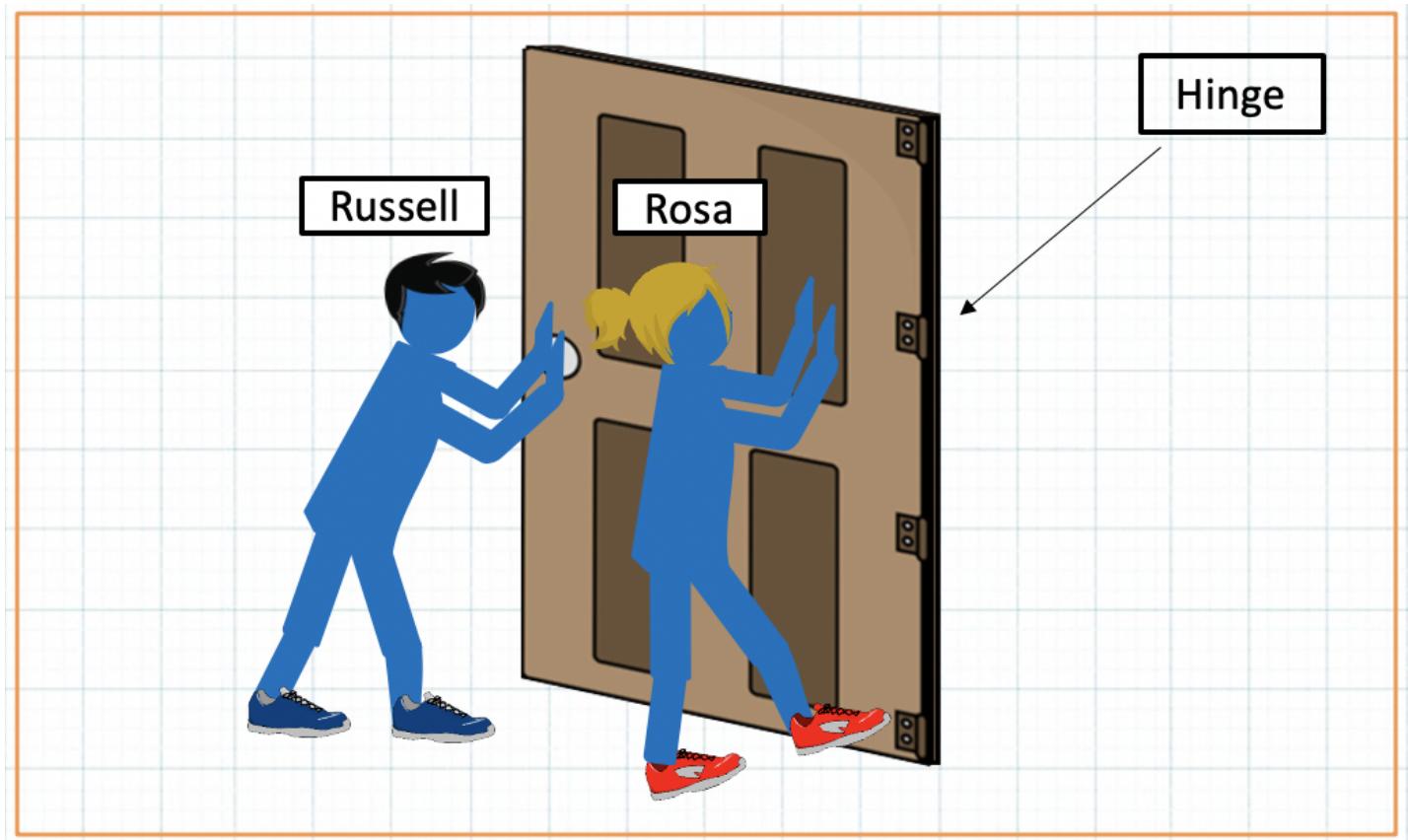
Far Q9 PoT-Lever-Distance



If the lever is balanced in the picture above, which of the following would cause the lever to go unbalanced?

- Replace 4 kg with 8 kg and move it to point A
- Replace 4 kg with 2 kg and move it to point B
- Both
- Neither

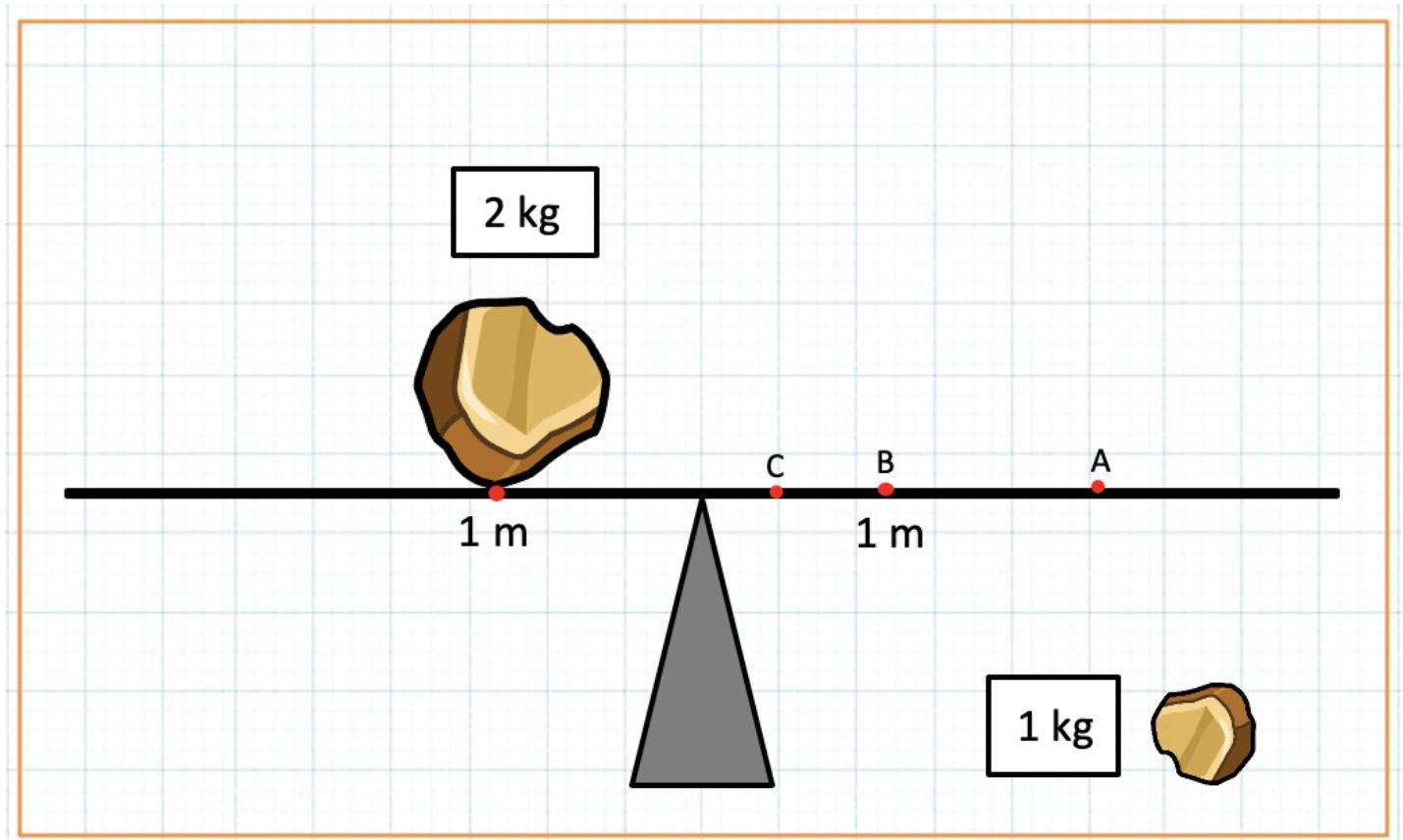
Far Q10 PoT-Lever-Distance 2



Russell and Rosa push a heavy door with the same force but at different positions. Who has the *greatest* effect on the movement of the door?

- Russell
- Rosa
- They both have an equal effect on the door's movement.
- Not enough information

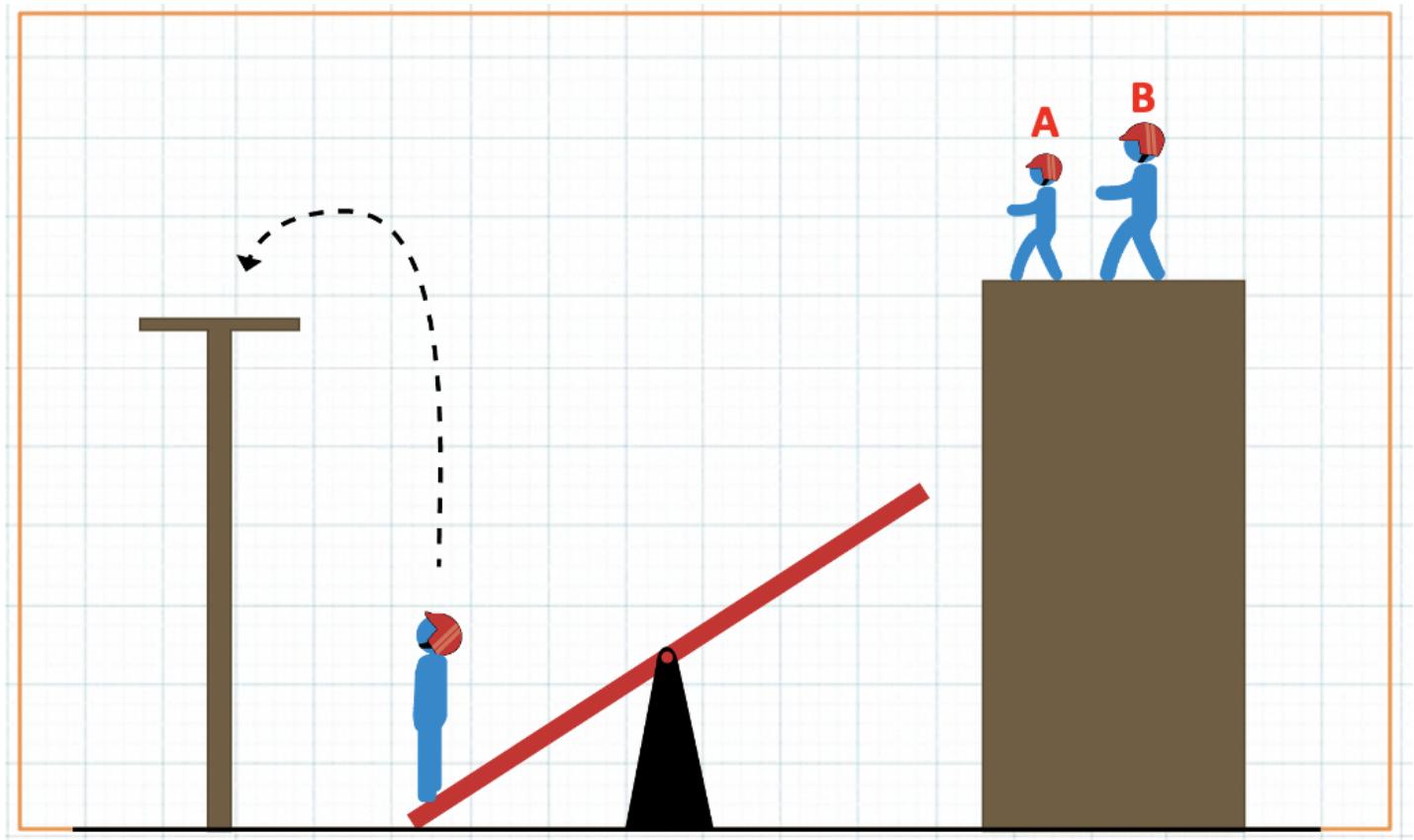
Far Q11 PoT-Lever-Mass



The 2 kg rock is 1 m from the fulcrum. The 1 kg rock is on the ground. How far should you place the 1 kg rock from the fulcrum for the lever to balance?

- Greater than 1 m
- Less than 1 m
- Equal to 1 m
- More information is needed to answer the question.

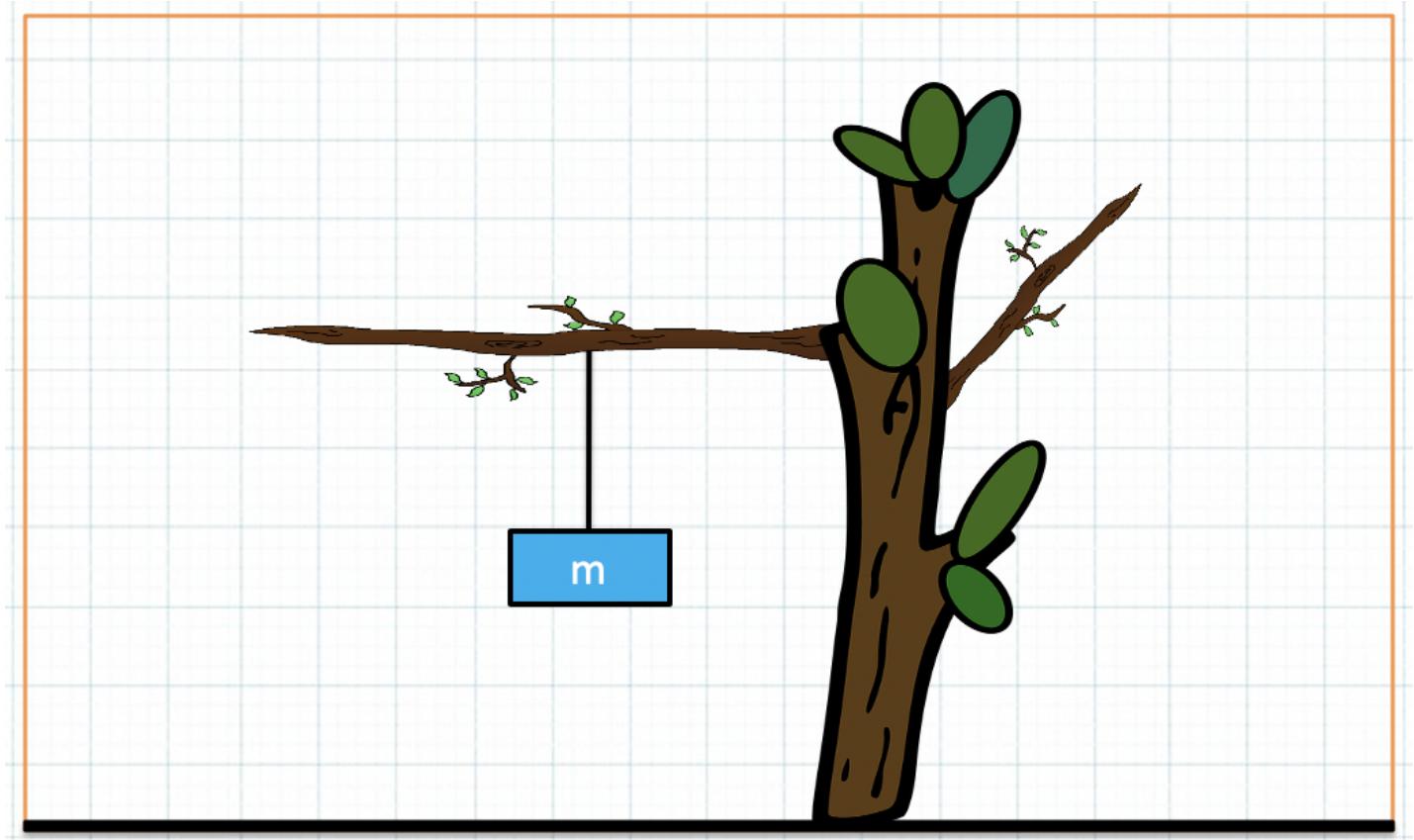
Far Q12 PoT-Lever-Mass 2



An acrobat needs to land on the platform above. At the top of another platform, two acrobats are ready to land on the opposite side of the lever. Which acrobat (A or B) is *less likely* to launch the first acrobat onto the platform.

- A
- B
- Both will have the same effect on the acrobat
- Not enough information

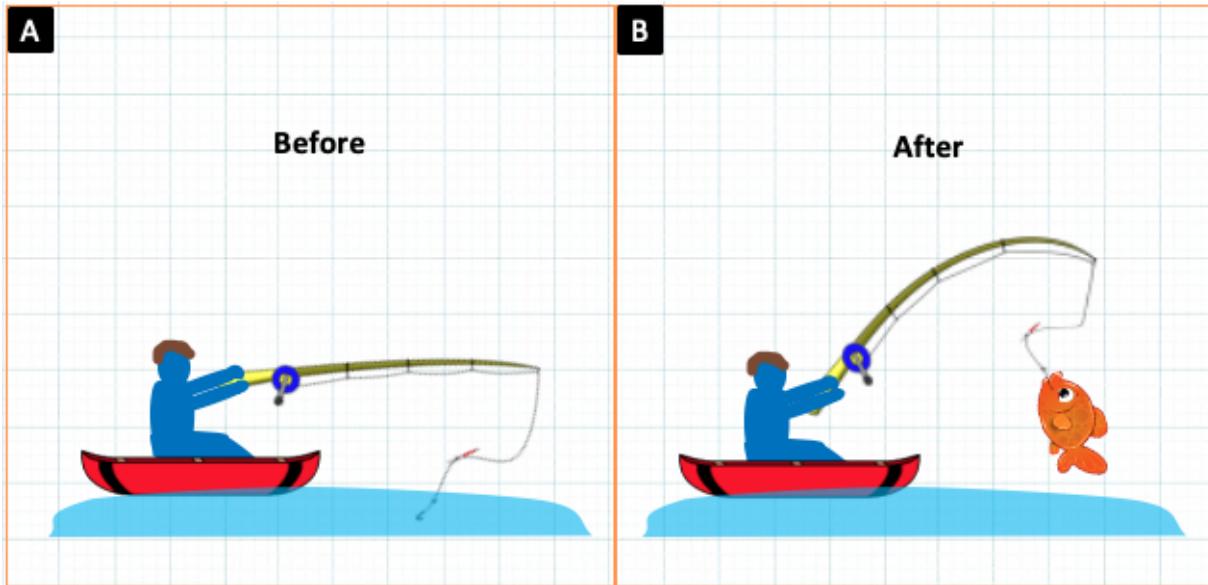
Far Q13 PoT-Springboard 1



An object is hanging on a tree branch. What would make the branch *more likely* to bend?

- By moving the object closer to the tree trunk
- By moving the object farther from the tree trunk
- By making the string shorter
- By making the string longer

Far Q14 PoT-Springboard 2



A person is fishing in a stream. If the fishing pole was longer, it would bend _____.
_____.

- more
- less
- the same
- more information is needed

Debrief DCSD

Please enter your User ID again:

You may have noticed while you were playing that sometimes a video animating a physics concept played before or after a level. Here is an example of one of these physics animation videos:

EcT Lever



Did you see any animations like these while you were playing Physics Playground?

- I saw physics animations while I played
- I did NOT see any physics animations while I played

Support Questions

The following questions are only for people who saw physics animations either before or after they played a level. If you did not see any physics animations, you do not have to answer these questions.

The physics animations helped me solve levels.

- Strongly agree
- Somewhat agree
- Neither agree nor disagree
- Somewhat disagree
- Strongly disagree

The physics animations helped me answer the physics test questions.

- Strongly agree
- Somewhat agree

- Neither agree nor disagree
- Somewhat disagree
- Strongly disagree

The physics animations helped me learn some physics

- Strongly agree
- Somewhat agree
- Neither agree nor disagree
- Somewhat disagree
- Strongly disagree

I'd prefer to play the game without the physics animations.

- Strongly agree
- Somewhat agree
- Neither agree nor disagree
- Somewhat disagree
- Strongly disagree

The physics animations were annoying

- Strongly agree
- Somewhat agree
- Neither agree nor disagree
- Somewhat disagree
- Strongly disagree

It was unclear how the physics animations were supposed to help me solve the level

- Strongly agree
- Somewhat agree
- Neither agree nor disagree
- Somewhat disagree

Strongly disagree

The physics animations made me like the game more

Strongly agree

Somewhat agree

Neither agree nor disagree

Somewhat disagree

Strongly disagree

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