

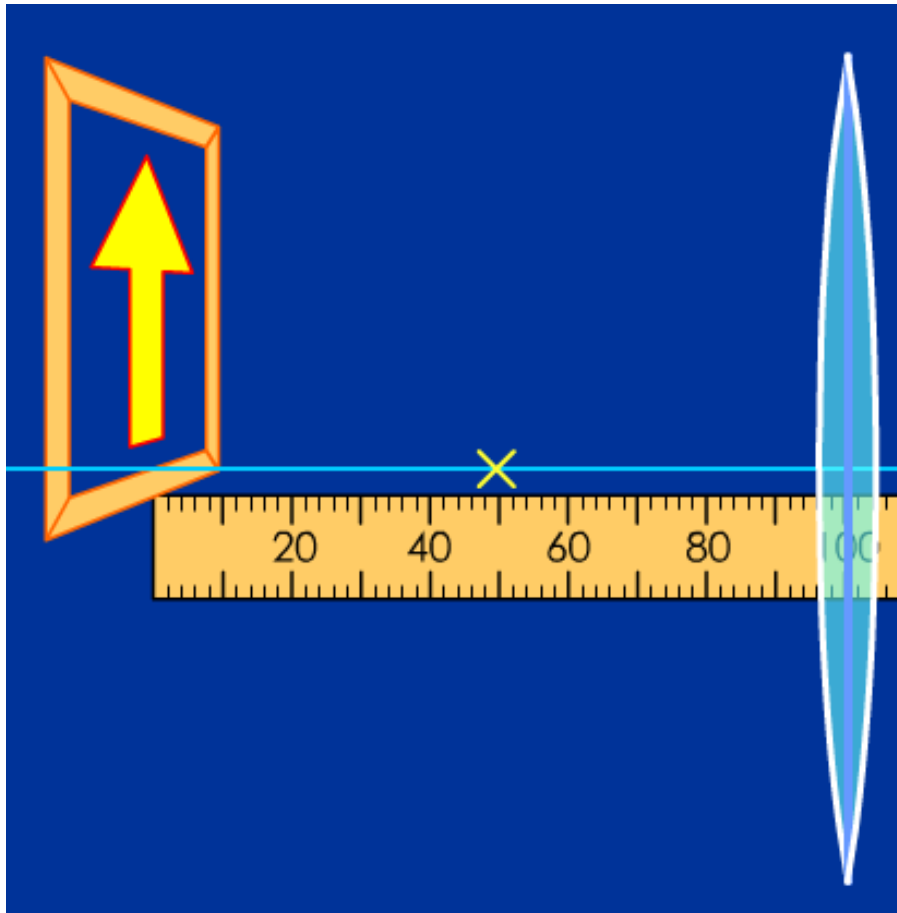
Geometric Optics Activity

Plane mirrors only

Learning Goals: Students will be able to explain

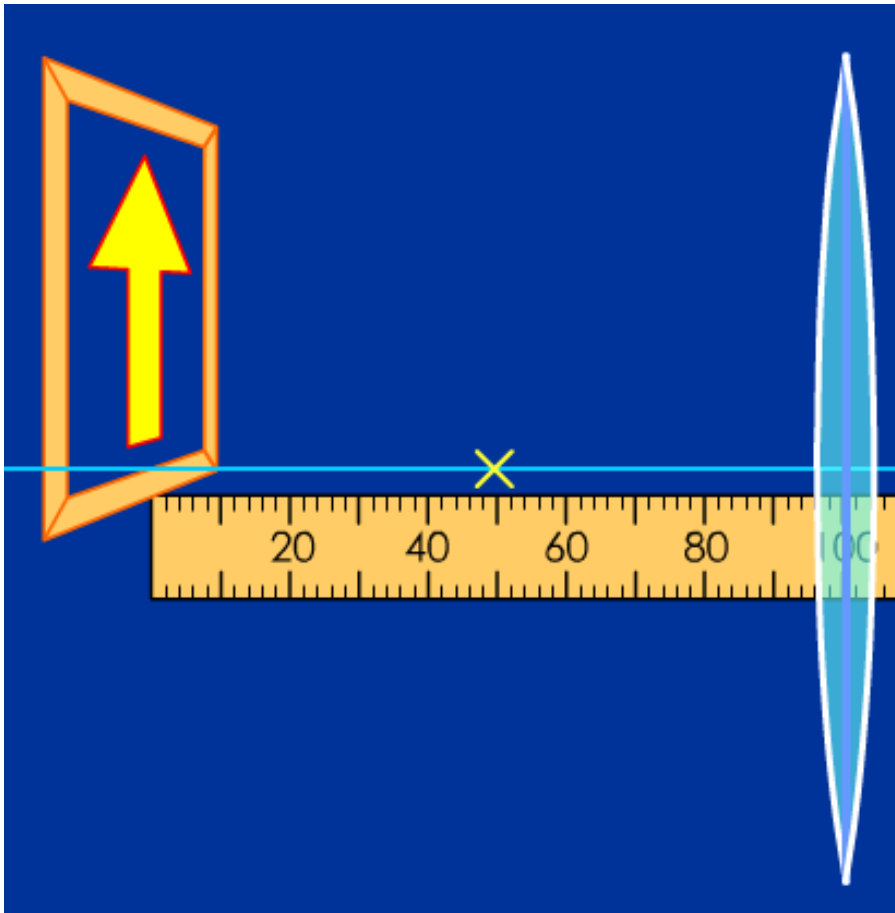
- How a converging lens makes images.
- How changing the lens effects where the image appears and how it looks






Where will the image appear?



- A. On the left, at the zero mark.
- B. On the right, at the 150 mark.
- C. On the right, at the 200 mark.
- D. On the right, at the 300 mark.

How will the image look?

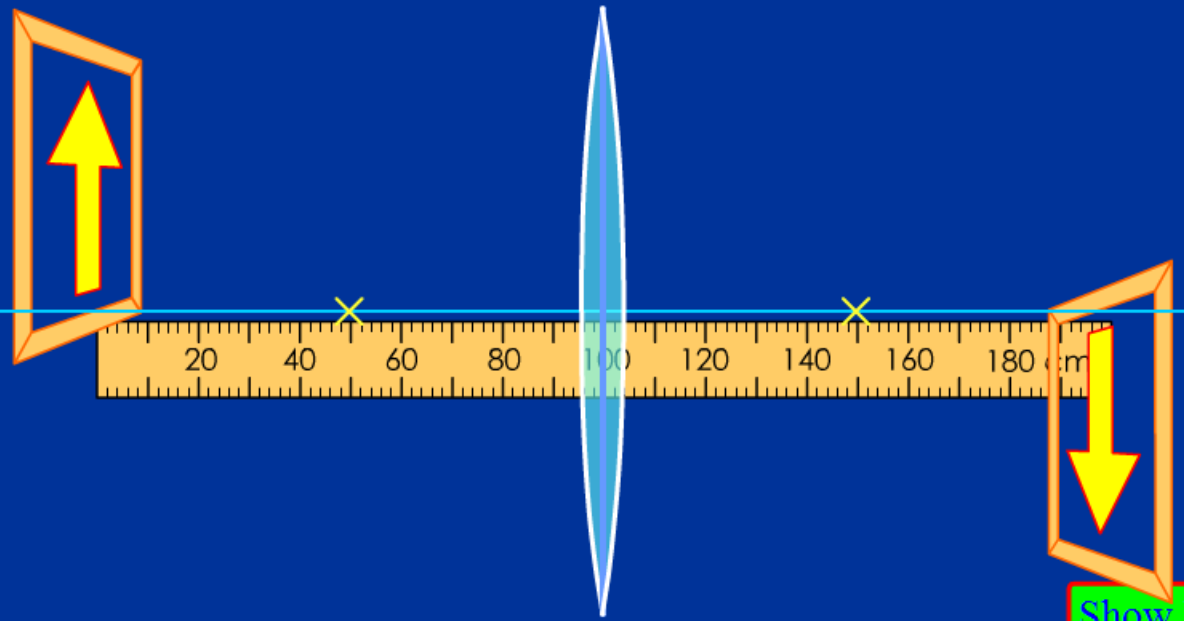


- A. Same size 
- B. Smaller 
- C. Larger 
- D. Same size 
- E. Smaller 

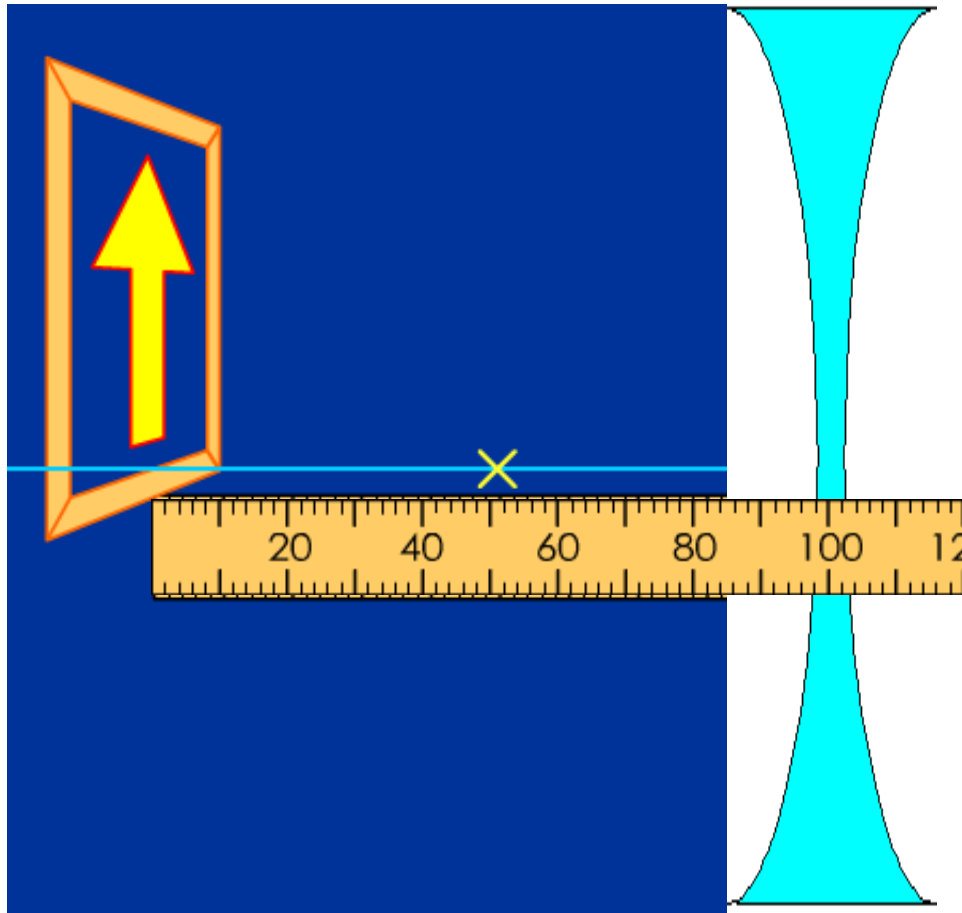
- No Rays
- Marginal rays
- Principal rays
- Many rays
- 2nd Point

0.56 curvature radius(m) 1.56 refractive index 1.21 diameter(m)

- change object
- Show Guides
 - Virtual image
 - Screen
 - Ruler

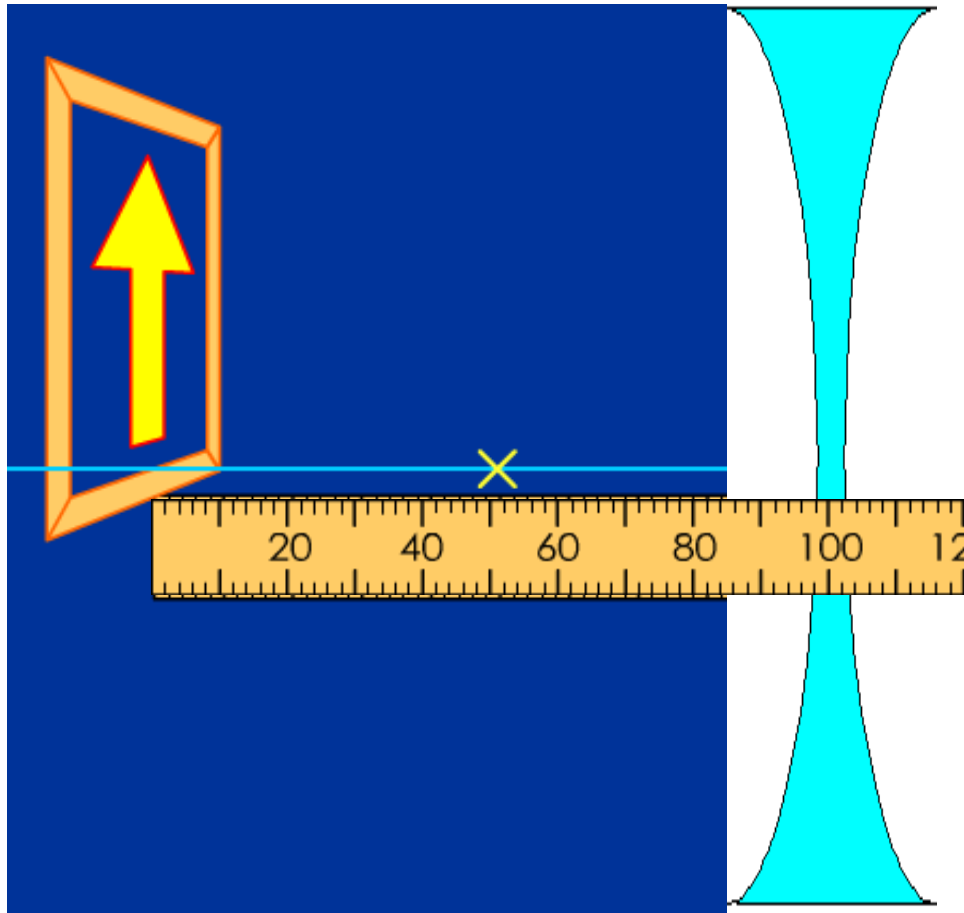


Where will the image appear if the lens were concave?



- A. On the left, at the zero mark.
- B. On the left, at the 67 mark.
- C. On the left, at the 33 mark.
- D. On the right, at the 200 mark.

How will the image look?



A. Same size 

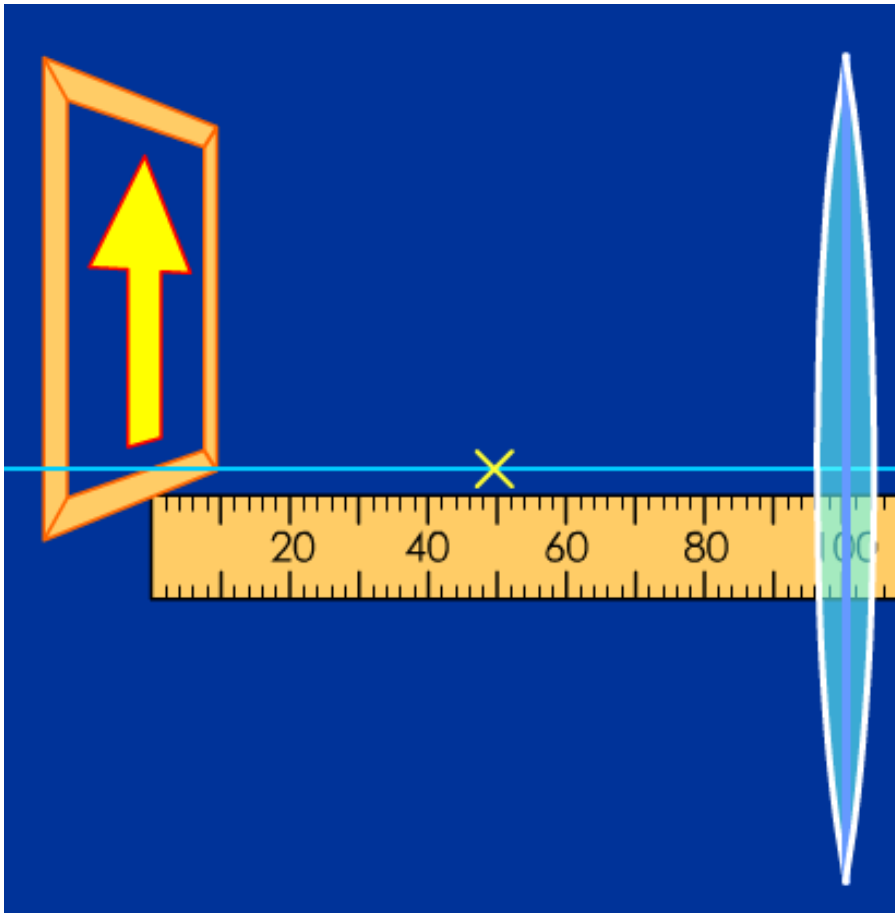
B. Smaller 

C. Larger 

D. Same size 

E. Smaller 

If the lens is made fatter in the middle, how will the image change?



- A. Larger, further away
- B. Smaller, further away
- C. Larger, closer
- D. Smaller, closer



- No Rays
- Marginal rays
- Principal rays
- Many rays
- 2nd Point

0.3 1.56 1.21

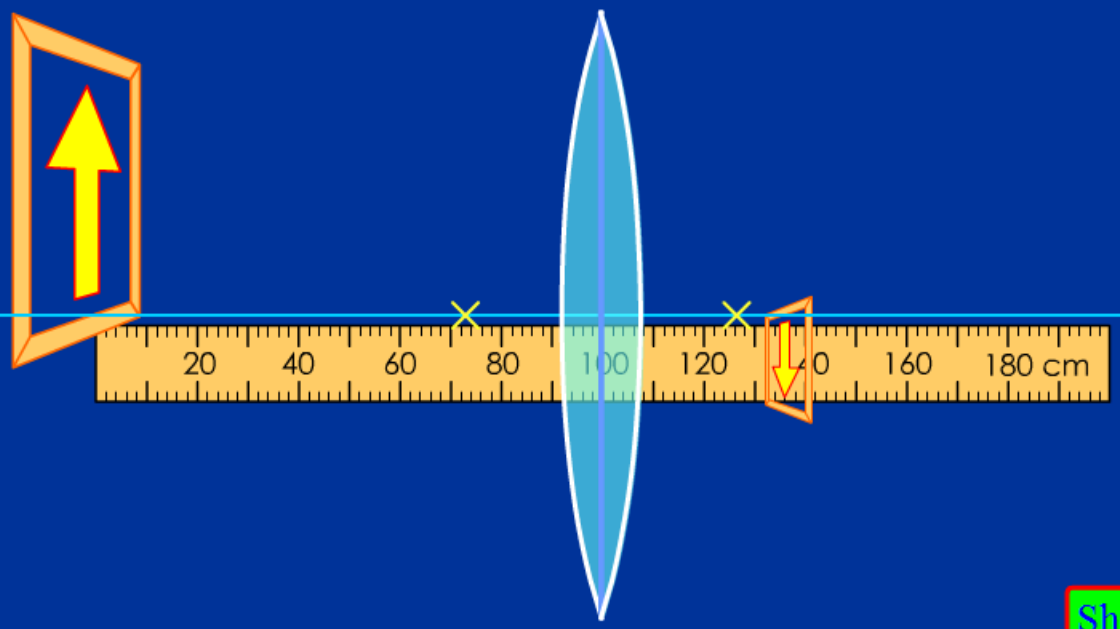
curvature radius(m) refractive index diameter(m)

change object

Show Guides

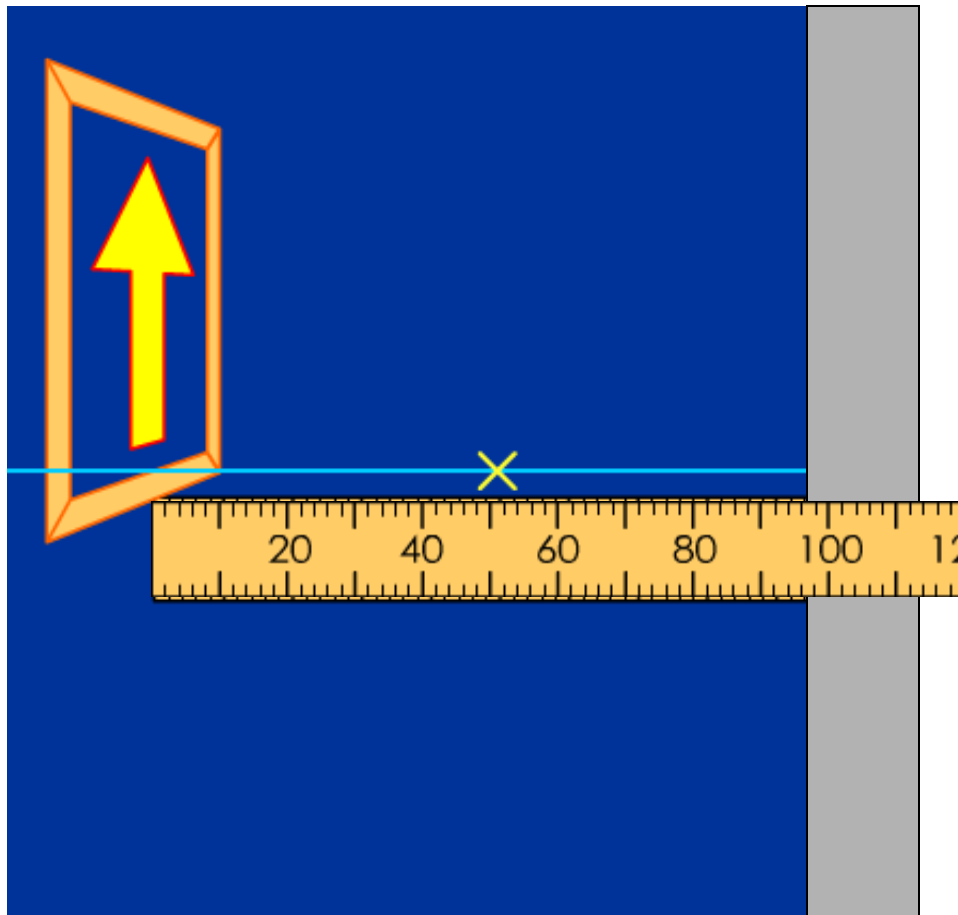
Virtual image

Screen Ruler



Show Help

If you replace the lens with a mirror, the image will be



A. Same size



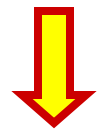
B. Smaller



C. Larger



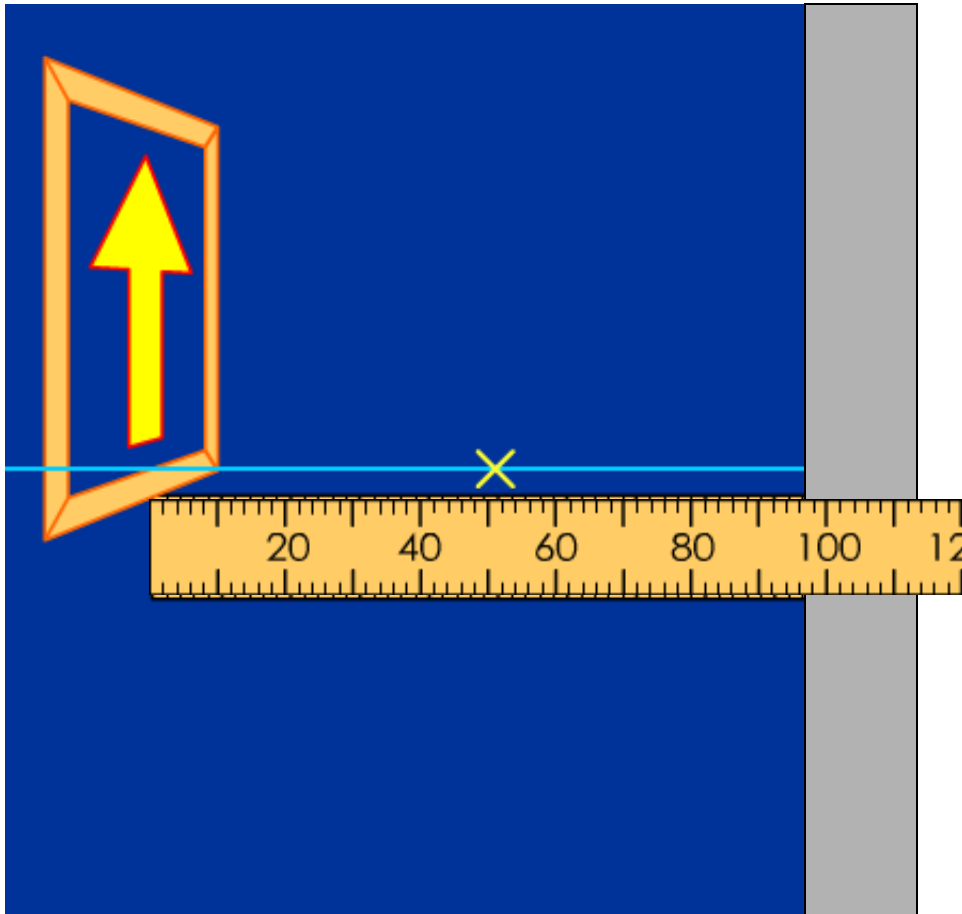
D. Same size








E. Smaller

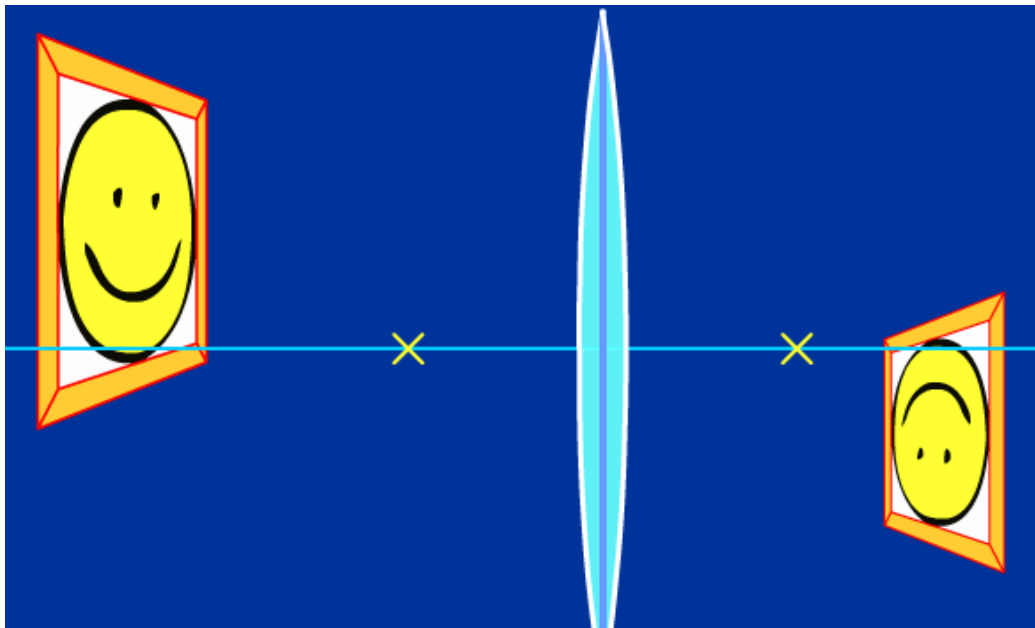


If you move the arrow towards the mirror, the image will be



- A. Same size 
- B. Smaller 
- C. Larger 
- D. Same size 
- E. Smaller 

If the lens had a lower index of refraction, the image be



A. Same size



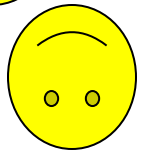
B. Smaller



C. Larger



D. Same size



E. Smaller



Geometric Optics - Microsoft Internet Explorer

No Rays
 Marginal rays
 Principal rays
 Many rays
 2nd Point

curvature radius(m) **0.56** refractive index **1.81** diameter(m) **1.21**

Show Guides
 Virtual image
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Geometric Optics - Microsoft Internet Explorer

No Rays
 Marginal rays
 Principal rays
 Many rays
 2nd Point

curvature radius(m) **0.56** refractive index **1.53** diameter(m) **1.21**

Show Guides
 Virtual image
 Screen Ruler