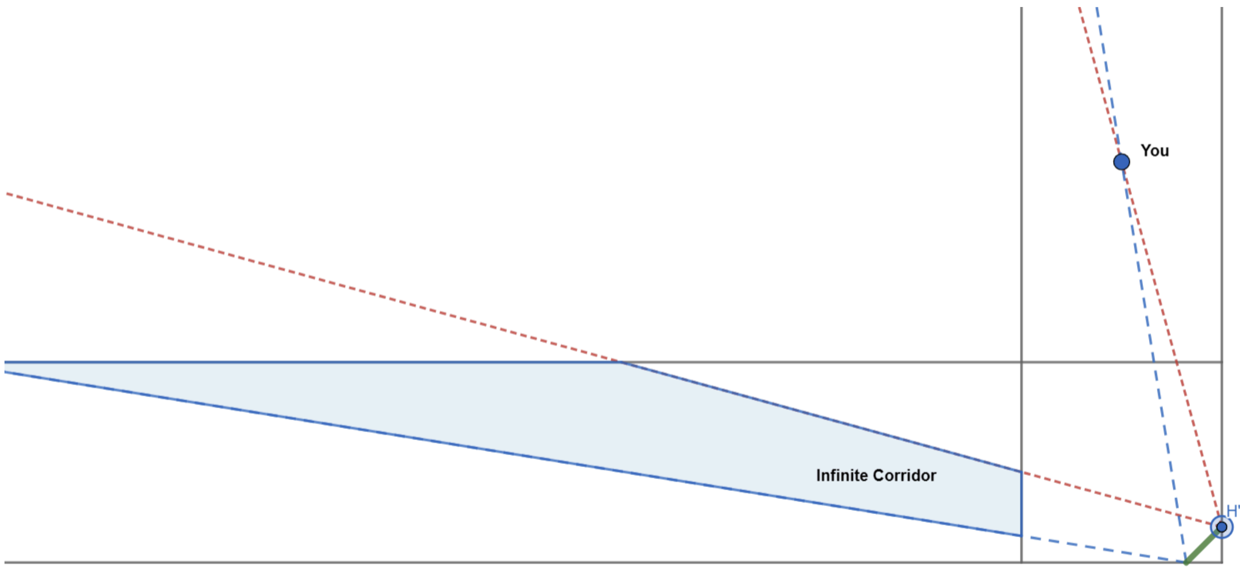
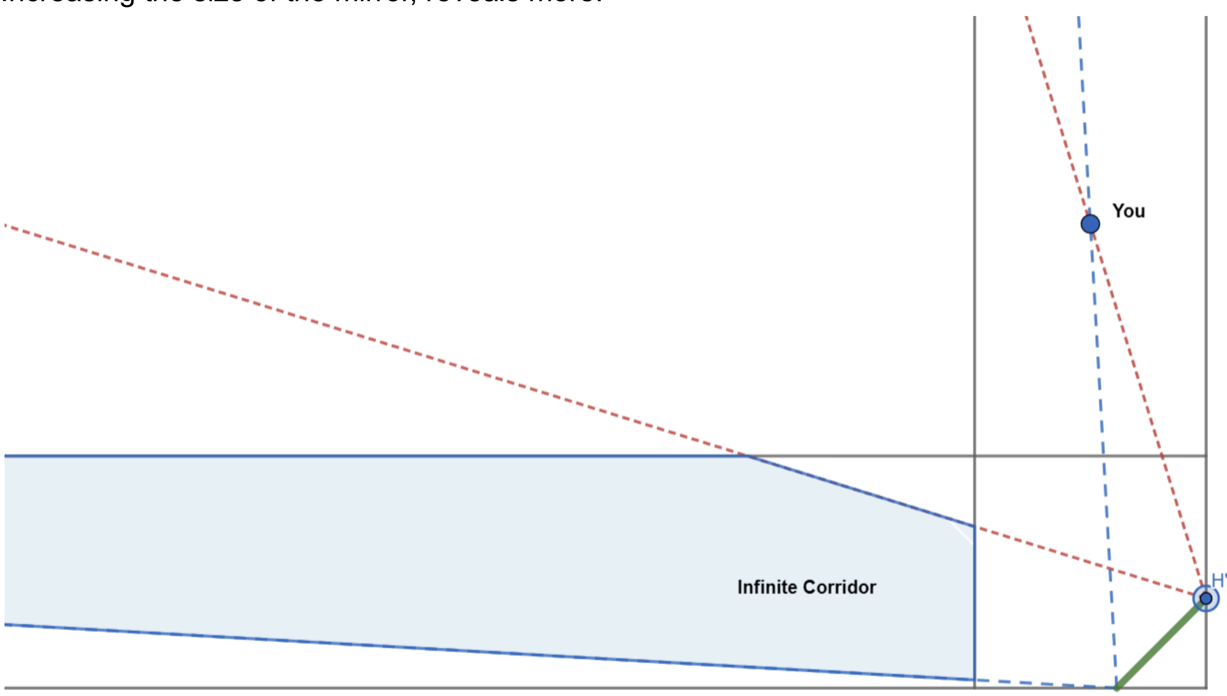
Let’s start with a visualization!
Here’s a nifty interactive viz in GeoGebra: https://www.geogebra.org/calculator/a4uavtuq
You can click and drag point *H* to change the size of the mirror, and you can see the reflections of the two most extreme rays: those which hit either end of the mirror.

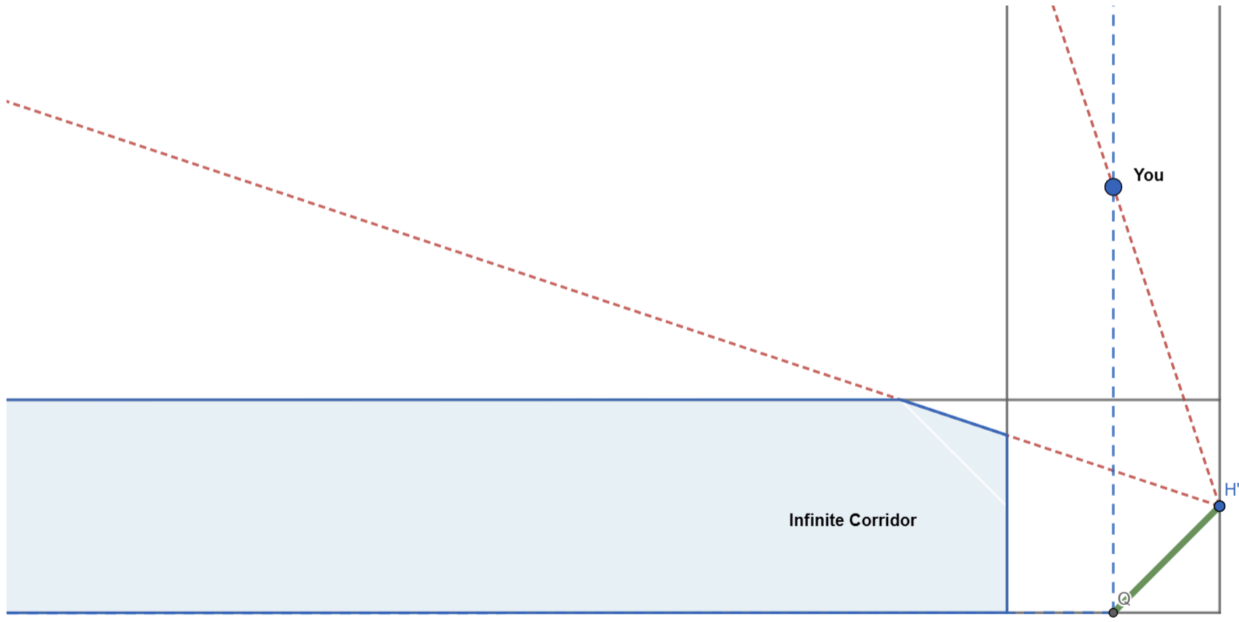
When the mirror is small we can see only part of the corridor:



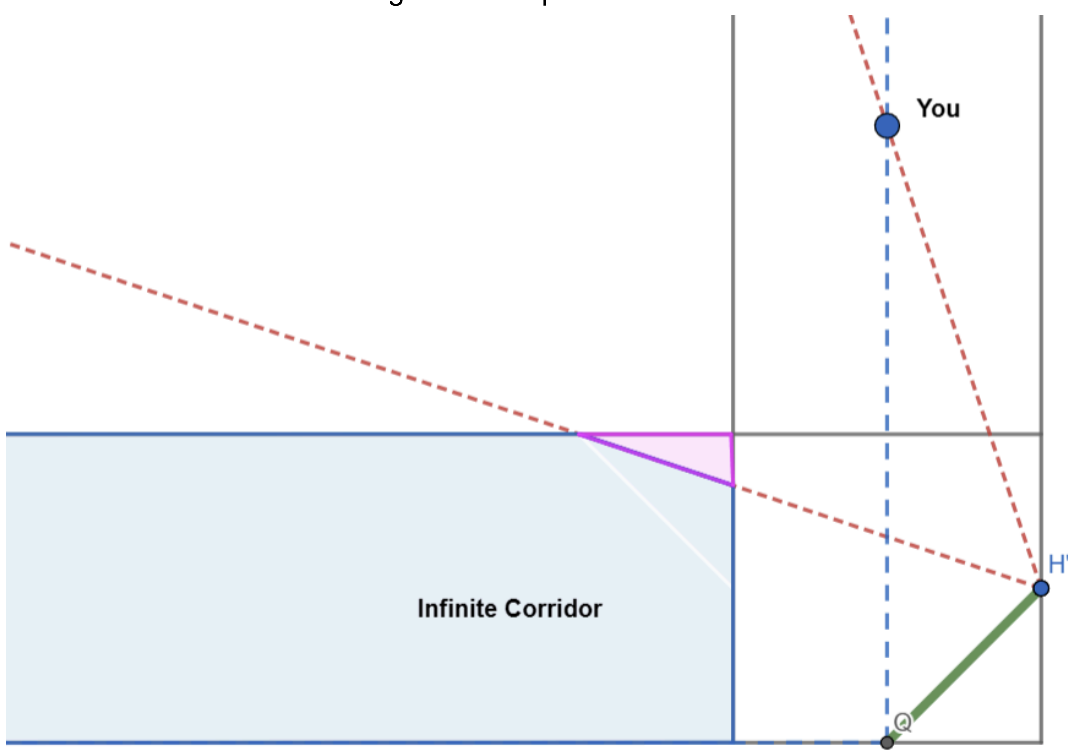
Increasing the size of the mirror, reveals more:



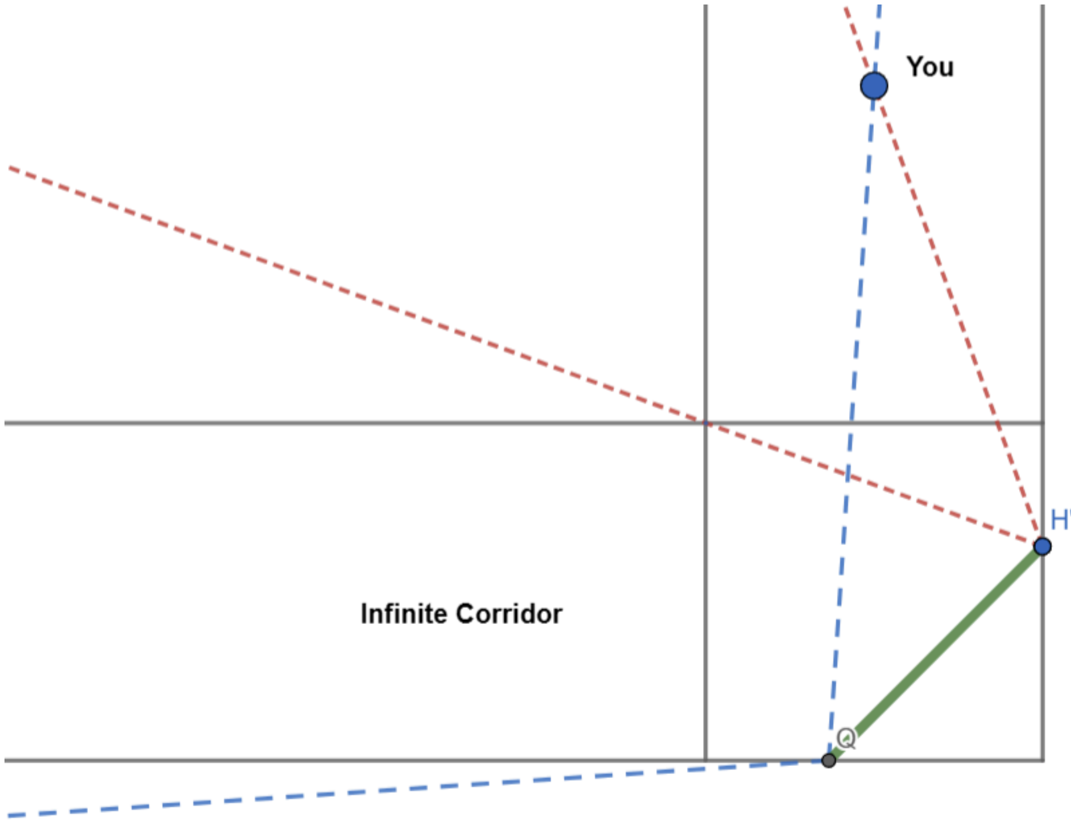
When the mirror is halfway up the side of the wall (i.e., each leg of the mirror “triangle” has length 0.5) the blue reflected ray runs parallel to the bottom edge of the corridor and we can see almost the entire corridor: (*n.b.* The interactive viz breaks down here; I made these images as one-offs.)



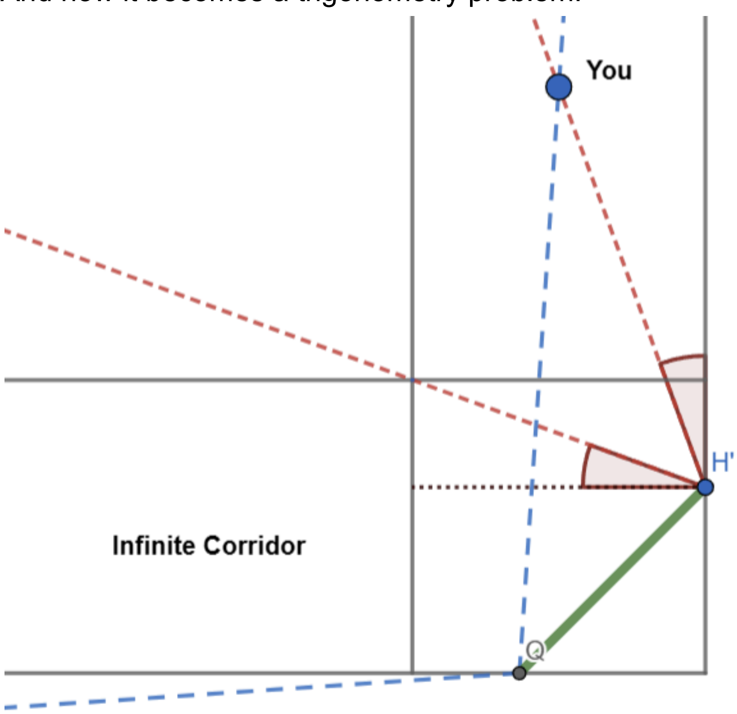
However there is a small triangle at the top of the corridor that is still not visible:



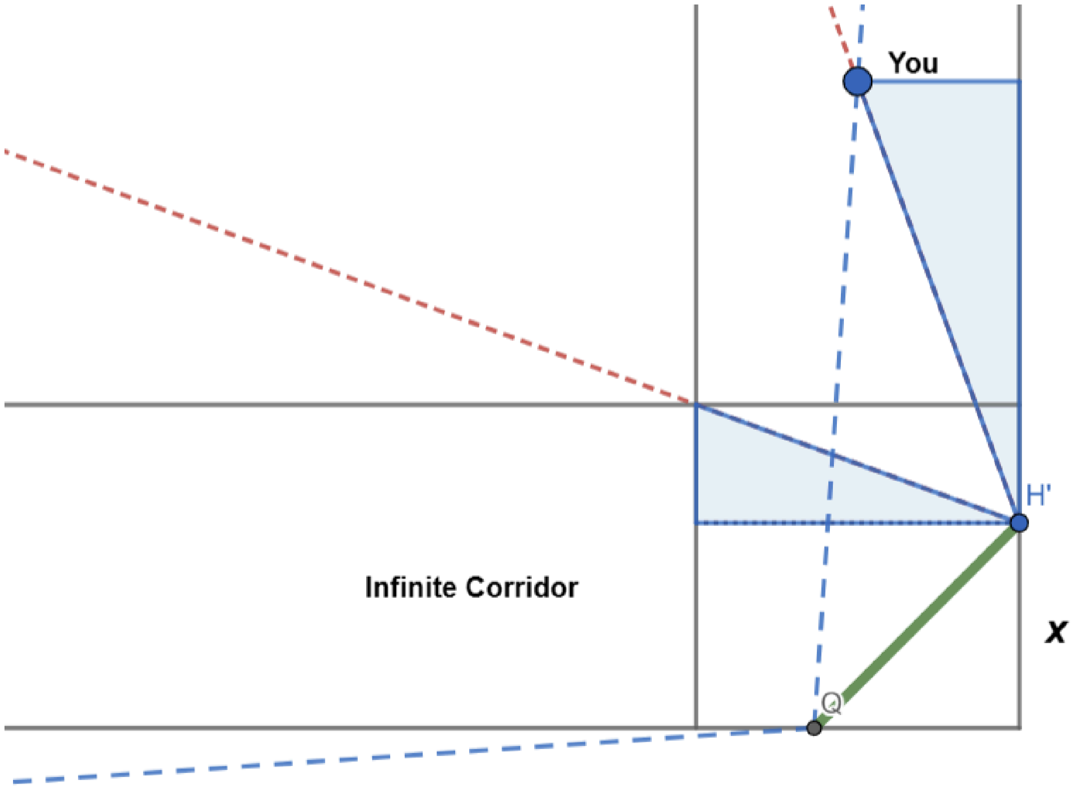
To see this, we must increase the mirror size until the red reflected ray hits the top-right corner of the corridor, like so:



And now it becomes a trigonometry problem:



The two highlighted angles above must be the same so we have two similar right triangles:



Here we have labeled the leg of the mirror triangle as ***x***. Then equating the cotangents of the two identical angles, we have:

$$(2 - x) / (½) = 1 / (1-x)$$
$$2 (x - 1) (x - 2) = 1$$
$$x = (3 - \text{sqrt}(3)) / 2$$

where we have kept only the root *x* with value between 0 and 1.

Finally the length of the mirror is sqrt(2) * *x* = (3 - sqrt(3)) / sqrt(2).