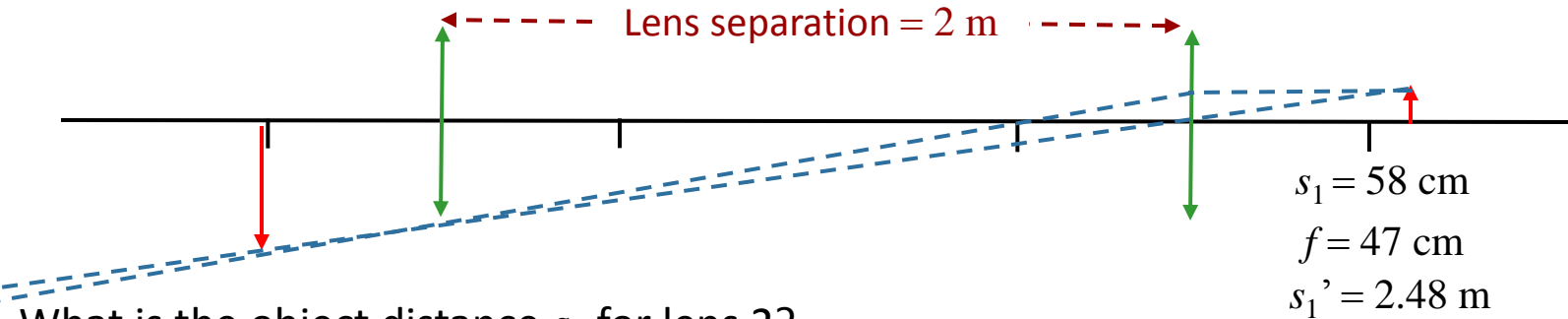# Multiple Lenses Exercises

Suppose we now decrease the initial object distance to 58 cm. Applying the lens equation, we find $s_1' = 2.48$m

Lens separation $= 2$ m

$s_1 = 58$ cm
$f = 47$ cm
$s_1' = 2.48$ m

What is the object distance s_2 for lens 2?

A) $s_2 = -0.48$ m   B) $s_2 = +0.48$ m   C) $s_2 = -2.48$ m   D) $s_2 = +2.48$ m   E) $s_2 = +2.58$ m

THE OBJECT FOR THE SECOND LENS IS THE IMAGE
OF THE FIRST LENS

$s_2 = -0.48$

OR

$s_2 = +0.48$

Image of first lens is a VIRTUAL
object for the second lens