

NAME: _____	Quiz #6a: Phys270
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1. [10 pts] You have been asked to build a telescope from a 5.0x magnifying lens and a 30.0x magnifying lens.

a. [3 pts] What is the maximum magnification you can achieve?

b. [4 pts] Which lens should be used as the objective? Make sure to explain your reasoning.

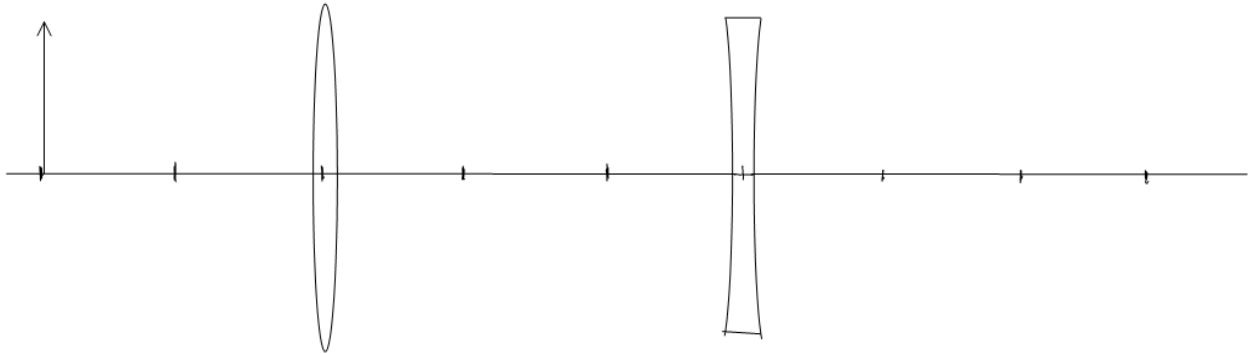
c. [3 pts] What will be the length of your telescope?

NAME:

Quiz #6b:
Phys270

1. [10 pts] A 10.0-cm-tall object is 20 cm to the left of a lens with a focal length of 10 cm. A second lens with a focal length of -5.0 cm is 30 cm to the right of the first lens.

a. [5 pts] Use your formula card as a straight edge to draw the ray diagram on the schematic below. Each tick mark represents 10 cm. Make sure to label the focal points, the image produced by the first lens, and the image produced by the second lens.



b. [5 pts] Calculate the image position and height.

NAME: _____	Quiz #6c: Phys270
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1. [10 pts] Bill can focus on objects 120 cm away with a relaxed eye. With full accommodation, he can focus on objects 20 cm away. After his eyesight is corrected for distance vision, what will his near point be while wearing his glasses?