

Name: _____

Physics 202 Quiz 7

May 27, 2013

Word Problems

Show all your work and circle your final answer. (Ten points each.)

1. The outside mirror on the passenger side of a car is convex and has a focal length of -7.0 meters. Relative to this mirror, a truck traveling in the rear has an object distance of 11 meters. Find (a) the image distance of the truck and (b) the magnification of the mirror.

2. A spotlight on a boat is 2.5 meters above the water, and the light strikes the water at a point that is 8.0 meters horizontally displaced from the spotlight (see Figure 1). The depth of the water is 4.0 meters. Determine the distance d , which locates the point where the light strikes the bottom.

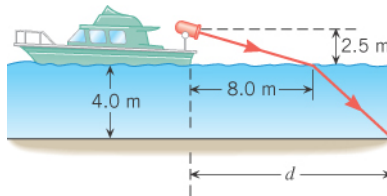


Figure 1: Problem 26.12