

Name: _____ Date: _____

Light

Q1. How can you show the image of the sun on a paper?

Ans. _____

Q2. The rear view mirror of a car is a plane mirror. A driver is reversing his car at a speed of 2 m/s. The driver sees in his rear view mirror the image of a truck parked behind his car. The speed at which the image of the truck appears to approach the driver will be _____.

Ans. _____

Q3. Write an experiment to show that the sunlight consists of seven colours.

Ans. _____

Q4. Why the word ambulance is written laterally inverted on ambulance vehicle?

Ans. _____

Light

Q1. How can you show the image of the sun on a paper?

Ans. Take a concave mirror. Hold it facing the sun. Try to get the light reflected by the mirror on a sheet of paper. Adjust the distance of the paper until you get a sharp bright spot on it. This bright spot is, in fact, the image of the sun.

Q2. The rear view mirror of a car is a plane mirror. A driver is reversing his car at a speed of 2 m/s. The driver sees in his rear view mirror the image of a truck parked behind his car. The speed at which the image of the truck appears to approach the driver will be _____.

Ans. The image of the truck will travel a distance twice the distance travelled by the car in equal time. Therefore, image of the truck will appear to approach the driver with the speed of $(2 + 2)$ m/s i.e. 4 m/s.

Q3. Write an experiment to show that the sunlight consists of seven colours.

Ans. Take a glass prism. Allow a narrow beam of sunlight through a small hole in the window of a dark room to fall on one face of the prism. Let the light coming out of the other face of the prism fall on a white sheet of paper or on a white wall. We see colours similar to those in a rainbow. This shows that the sunlight consists of seven colours.

Q4. Why the word ambulance is written laterally inverted on ambulance vehicle?

Ans. The word ambulance is written laterally inverted on ambulance vehicle because when the driver of a vehicle ahead of an ambulance looks in her/his rear view mirror, she/he can read "AMBULANCE" written on it and give way to it.