Answer on Question #41505 – Physics – Other

Which of these is NOT a useful precaution in an optical experiment?
keeping optical pins widely spaced
keeping optical pins erect
replacing glass blocks on the drawn outlines
not dragging the jockey on the potentiometer wire

Solution:

Keeping optical pins widely spaced will reduce uncertainty and increase the accuracy of the experiment.

Replacing glass blocks on the drawn outlines will make an error in the experiment, because glass block is the main part of the optical experiment (it happen and hitting the refraction of rays), so we can't replace it with a drawn outlines.

Keeping optical pins erect will increase the accuracy of the experiment, because the angle between the optical pin and plane of the experiment remains constant ($90°$).

For this the current in the initial circuit must remain constant and the jockey must not be slided, thus not dragging the jockey on the potentiometer wire is a useful precaution in an optical experiment.

Hence, answer is «replacing glass blocks on the drawn outlines»

Answer: replacing glass blocks on the drawn outlines