

Name

Date

Physics



Cleaning with Light

Multiple Choice

For each question, select the best answer from the four alternatives.

1. In paragraph 1, “manual scraping” refers to a scraping done
 - a) according to an instruction booklet.
 - b) by hand.
 - c) with chemicals.
 - d) while a supervisor watches.
2. Laser light cleans statues and paintings by
 - a) bleaching dirt particles to make them transparent.
 - b) melting the paint surface, so it absorbs and hides the dirt particles.
 - c) rapidly vapourizing dirt particles, turning them into gas.
 - d) heating dirt particles, causing them to expand and fall off.
3. In the second sentence of paragraph 3, the commas are used to
 - a) highlight contrasting information.
 - b) set off information that is not essential to the sentence.
 - c) separate independent clauses.
 - d) indicate missing words.
4. Which of the following uses of lasers relies on the same properties of lasers as the cleaning of art?
 - a) laser surgery that reshapes the surface of the eye
 - b) bouncing laser beams off the surface of the Moon to determine its distance
 - c) using lasers to cut or weld steel
 - d) laser scanning of product barcodes in stores

Short Answer

Based on the last sentence of the article, discuss whether lasers were developed for scientific reasons or technological reasons. Cite wording from the article in your answer.

5. _____



Cleaning with Light

Multiple Choice

For each question, select the best answer from the four alternatives.

- In paragraph 1, “manual scraping” refers to a scraping done
 - according to an instruction booklet.
 - by hand.
 - with chemicals.
 - while a supervisor watches.
- Laser light cleans statues and paintings by
 - bleaching dirt particles to make them transparent.
 - melting the paint surface, so it absorbs and hides the dirt particles.
 - rapidly vapourizing dirt particles, turning them into gas.
 - heating dirt particles, causing them to expand and fall off.
- In the second sentence of paragraph 3, the commas are used to
 - highlight contrasting information.
 - set off information that is not essential to the sentence.
 - separate independent clauses.
 - indicate missing words.
- Which of the following uses of lasers relies on the same properties of lasers as the cleaning of art?
 - laser surgery that reshapes the surface of the eye
 - bouncing laser beams off the surface of the Moon to determine its distance
 - using lasers to cut or weld steel
 - laser scanning of product barcodes in stores

Short Answer

Based on the last sentence of the article, discuss whether lasers were developed for scientific reasons or technological reasons. Cite wording from the article in your answer.

- “An invention is search of a purpose” means that lasers were developed without having a particular use for them in mind beforehand. Therefore, lasers were a product of pure science because technology is the practical application of science to the solution of problems or the development of useful devices.