A 16-year-old student purchased an educational chemistry set manufactured by a chemical company.

The student invited his classmate to assist him in a chemistry project. Referring to a website on explosives and finding that the chemistry set contained all of the necessary chemicals, the student and classmate agreed to make a bomb. During the course of the project, the student carelessly knocked a lighted Bunsen burner into a bowl of chemicals from the chemistry set. The chemicals burst into flames, injuring the classmate.

In a suit by the classmate against the chemical company based on strict liability, will the classmate likely prevail?

A. No, because the student's negligence was the cause in fact of the classmate's injury.

B. No, if the chemistry set was as safe as possible, consistent with its educational purposes, and its benefits exceeded its risks.

C. Yes, because manufacturers of chemistry sets are engaged in an abnormally dangerous activity.

D. Yes, if the chemistry set did not contain a warning that its contents could be combined to form dangerous explosives.

Explanation:

A commercial supplier is subject to **strict products liability** for harm caused by its defective product. A product is **defective by design** if:

it poses a foreseeable risk of harm *and*

that risk could have been reduced by a feasible alternative design (ie, the **risk-utility test**—**comparing** the risks and benefits of the **original design** to those of an **alternative design**).

Here, it may have been foreseeable that the chemistry set would be used in a harmful manner (to make a bomb). But if the chemistry set was as safe as possible, consistent with its educational purposes, and its benefits exceeded its risks, then the benefits of its original design would surpass those of an alternative design. In that case, the chemistry set would not be defective and the chemical company would not be strictly liable.

(Choice A) A "cause in fact" is an event that plays such a substantial role in causing the plaintiff's injury that the injury would not have occurred *but for* that event. But here, the classmate cannot prevail—regardless of whether the student's negligence was a cause in fact of the classmate's injury—because the chemistry set was not defective.

(Choice C) Strict liability may be imposed for harm caused by an abnormally dangerous activity. Although it may be abnormally dangerous to manufacture chemistry sets, the classmate was harmed by his attempt to make a bomb with a chemistry set—not by the chemical company's earlier manufacturing of that set. Therefore, the company is not liable under this theory.

(Choice D) Commercial suppliers may be strictly liable for not providing adequate warnings about a product's risk of harm—but only if those warnings would have prevented the plaintiff's harm. Here, the student and the classmate already knew (from the website) that the chemicals could be combined to make explosives and knowingly ignored that risk. Therefore, a warning would have been ineffective and a failure to warn claim would likely fail.

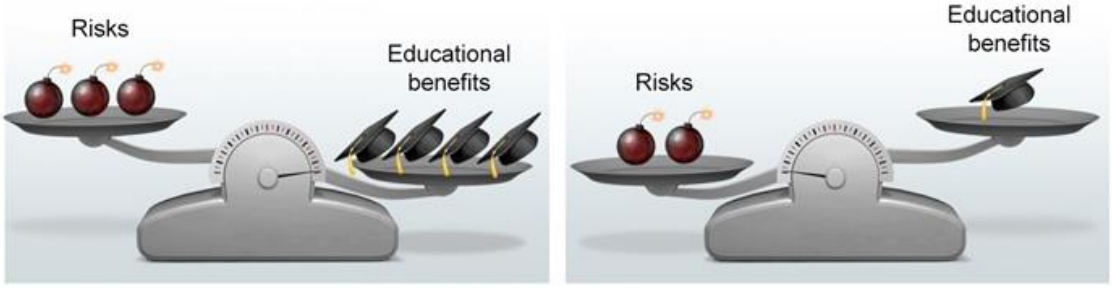
Educational objective:

A product is defectively designed if (1) it poses a foreseeable risk of harm and (2) that risk could have been reduced by a feasible alternative design, as determined by the risk-utility test (comparing the risks and benefits of the original and alternative designs).

References

Restatement (Third) of Torts: Prods. Liab. §§ 1, 2(b) (Am. Law Inst. 1998) (strict liability for defectively designed products).

Risk-utility test



Original chemistry set
(benefits outweigh risks)

Alternative design
(risks outweigh benefits)