

**Exercise 13-12** (15 minutes)

The company should accept orders first for Product C, second for Product A, and third for Product B. The computations are:

	<i>Product A</i>	<i>Product B</i>	<i>Product C</i>
(1) Direct materials required per unit .....	\$24	\$15	\$9
(2) Cost per pound.....	\$3	\$3	\$3
(3) Pounds required per unit (1) ÷ (2) ....	8	5	3
(4) Contribution margin per unit.....	\$32	\$14	\$21
(5) Contribution margin per pound of materials used (4) ÷ (3) .....	\$4.00	\$2.80	\$7.00

Because Product C uses the least amount of material per unit of the three products, and because it is the most profitable of the three in terms of its use of materials, some students will immediately assume that this is an infallible relationship. That is, they will assume that the way to spot the most profitable product is to find the one using the least amount of the constrained resource. The way to dispel this notion is to point out that Product A uses more material (the constrained resource) than Product B, but yet it is preferred over Product B. *The key factor is not how much of a constrained resource a product uses, but rather how much contribution margin the product generates per unit of the constrained resource.*