11. **Everything else equal**, if a firm wants to *reduce* its debt ratio, which of the following actions should be taken? THINK before answering.

   \[
   \text{Total assets turnover} = \frac{\text{Sales}}{\text{Total assets}} = 3.0 \times \quad \text{Debt ratio} = \frac{\text{Total liabilities}}{\text{Total assets}} = 0.40 = 40.0\%
   \]

   a. Pay off some existing debt with cash.
   b. Issue new debt and use the proceeds to pay off some of the old (existing) debt.
   c. Issue additional debt.
   d. Purchase new equipment using cash.
   e. More than one of the above actions will reduce a firm’s debt ratio.

You can answer this question by setting up an example and applying each of the answer selections to the example. Let’s assume the firm’s total assets equal $100,000 and total liabilities equal $40,000 so that the debt ratio equals 0.40 = $40,000/$100,000.

   a. If the firm pays existing debt—say, $10,000—both total liabilities and total assets decrease by the same amount. In the example, the debt ratio would decrease to 0.33 = $30,000/$90,000.
   b. If the firm issues new debt—say, $10,000—to pay off existing debt ($10,000 in this case), total liabilities would not change. Because total assets would not change either, the debt ratio would not change.
   c. If the firm issues new debt—say, $10,000—both total liabilities and total assets will increase by the same amount. In the example, the debt ratio will increase to 0.45 = $50,000/$110,000.
   d. If the firm purchases new equipment—perhaps in the amount of $10,000—using cash, total assets will not change (cash decreases by $10,000 and long-term assets increase by $10,000). Because cash was used for the purchase, liabilities will not change either. As a result, the debt ratio will not change.
   e. Only one action will reduce the firm’s debt ratio.

**RETURN TO THE SAMPLE QUESTIONS**