$$K_n = \frac{\$1.20}{\$30 - \$1.50} + 9\% = \frac{\$1.20}{\$28.50} + 9\% = 4.21\% + 9\% = 13.21\%$$

PROBLEMS

connect **Selected problems are available with Connect. Please see the preface for more information.**

Basic Problems

1. In March 2010, Hertz Pain Relievers bought a massage machine that provided a return of 8 percent. It was financed by debt costing 7 percent. In August, Mr. Hertz came up with a heating compound that would have a return of 14 percent. The chief financial officer, Mr. Smith, told him it was impractical because it would require the issuance of common stock at a cost of 16 percent to finance the purchase. Is the company following a logical approach to using its cost of capital?

   Cost of capital *(LO11-2)*

2. Speedy Delivery Systems can buy a piece of equipment that is anticipated to provide an 11 percent return and can be financed at 6 percent with debt. Later in the year, the firm turns down an opportunity to buy a new machine that would yield a 9 percent return but would cost 15 percent to finance through common equity. Assume debt and common equity each represent 50 percent of the firm's capital structure.

   Cost of capital *(LO11-2)*

   a. Compute the weighted average cost of capital.

   b. Which project(s) should be accepted?

3. A brilliant young scientist is killed in a plane crash. It is anticipated that he could have earned $240,000 a year for the next 50 years. The attorney for the plaintiff's estate argues that the lost income should be discounted back to the present at 4 percent. The lawyer for the defendant's insurance company argues for a discount rate of 8 percent. What is the difference between the present value of the settlement at 4 percent and 8 percent? Compute each one separately.

   Effect of discount rate *(LO11-2)*