**2. Grommit Engineering expects to have net income next year of $20.75 million and free cash flow of $22.15 million. Grommit’s marginal corporate tax rate is 35%.**

*a. If Grommit increases leverage so that its interest expense rises by $1million, how will its net income change.*

*b. For the same increase in interest expense, how will free cash flow change?*

**5. Your firm currently has $100 million in debt outstanding with a 10% interest rate. The terms of the loan require the firm to repay $25 million of the balance each year. Suppose that the marginal corporate tax rate is 40%, and that the interest tax shields have the same risk as the loan.**

*What is the present value of the interest rate shields from this debt?*

**16. Milton Industries expects free cash flow of $5million each year. Milton’s corporate tax rate is 35%, and its unleveled cost of capital is 15%. The firm also has outstanding debt of $19.05 milllion and it expects to maintain this level of debt permanently.**

*a. What is the value of Milton Industries without leverage?*

*b. What is the value of Milton Industries with leverage?*

**25. With its current leverage, Impi Corporation will have net income next year of $4.5 million. If Impi’s corporate tax rate is 35% and it pays 8% interest on its debt, how much additional debt can Impi issue this year and still receive the benefit of the interest tax shield next year?**