1. You are offered an investment that requires you to put up $12,000 today in exchange for $40,000 15 years from now. What is the annual rate of return on this investment?

2. You just received notification that you have won the $1 million first prize in the Centennial Lottery. However, the prize will be awarded on your 100th birthday (assuming you’re around to collect), 80 years from now. What is the present value of your windfall if the appropriate discount rate is 13 percent?