# INTEREST [PIRNOT 8.2]

**EX 8.2.1:** Kate wishes to defer payment of her \$6000 tax bill for six months.

She must pay an annual interest rate of 17% **using simple interest**.

(a) What will her total payment be? (b) How much interest will she pay?

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**EX 8.2.2:** Jim plans to take a vacation in 3 years. He expects the trip to cost \$1800.

He purchases a CD (Certificate of Deposit) with an annual interest rate of 12%. The CD uses **simple interest**.

How much money must Jim put into the CD to ensure he will have the necessary money for the trip?

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**EX 8.2.3:** Steve has borrowed \$500 on his father's watch from a pawn shop.

He has agreed to pay off the loan with \$530 one month later.

What is the annual interest rate that he is being charged? (Assume **simple interest**.)

**EX 8.2.4:** Jane buys a new car for $13,000 and agrees to pay it off in 6 years at 6.5% annual interest compounded monthly. What will be the total amount Jane pays for the car loan?

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**EX 8.2.5:** Mark is 32 years old and plans to retire at age 65 with $1,500,000 in his retirement account. He intends to achieve this by putting some money in an investment paying 6% annual interest compounded daily. How much money must Mark set aside in this investment to achieve his goal? (Assume 365 days in a year.)

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**EX 8.2.6:** You purchase for $9,500 a municipal bond valued at $25,000. The bond reaches its full face value in 12 years. If the interest paid to you is compounded quarterly, what is the annual interest rate?