

aTxT Phones is considering building a new factory for \$3,000,000 to produce iPhones. The new factory would be depreciated on a straight-line basis of \$600,000 per year for each of the next 5 years (starting next year). Expected sales of iPhones are expected to vary by year as follows: 1st year = \$4,000,000; 2nd year = \$5,000,000; 3rd year = \$5,500,000; 4th year = \$4,500,000; and 5th year = \$2,500,000. Production costs are expected to equal 75% of sales and fixed costs associated with the new factory will equal \$1,000,000 per year. Inventory is expected to equal 15% of each year's sales and accounts payable are expected to equal 5% of each year's sales. aTxT's cost of capital is 14% and its tax rate is 35%. What is the factory's free cash flow four years from today (during the 4th year)?

$$\begin{aligned}
 FCF_4 &= (R_4 - E_4 - D_4)(1 - \tau_C) + D_4 - CE_4 - \Delta NWC \\
 \Rightarrow FCF_4 &= (4,500,000 - .75(4,500,000) - 1,000,000 - 600,000)(1 - .35) + 600,000 - 0 - \Delta NWC \\
 \Delta NWC &= NWC_4 - NWC_3 \\
 NWC_4 &= .15(4,500,000) - .05(4,500,000) \\
 NWC_3 &= .15(5,500,000) - .05(5,500,000)
 \end{aligned}$$