FA Module 11: Operating leases and finance leases – homework assignment

(The attached PDF file has better formatting.)

*Homework assignment:* Finance lease

A firm enters into a four year finance lease on 1/1/20X1.

- Annual lease payments of 200 are due on January 1 of 20X1, 20X2, 20X3, and 20X4.
- The fair value of the equipment = the present value of the lease payments at the firm's 6% discount rate.
- The useful life of the equipment is four years and the salvage value is zero; use straight line depreciation.

On December 31, 20X0, the firm has

- common stock = 800
- long-term debt = 160
- retained earnings = 0

The firm does not issue or repurchase common stock or issue or redeem debt in 20X1 - 20X4.

The firm has earnings before tax and operating cash flow *not including any expenses related to the lease* of 400 in each year. The tax rate is 20%.

Use the assumptions in the textbook about how the lease payments are divided between interest expense and reduction of the lease liability.

A. What is the fair value of the equipment on January 1, 20X1?
B. What is the interest accrued (= interest expense) in 20X1?
C. What is the lease liability on December 31, 20X1?
D. What is the interest accrued (= interest expense) in 20X2?
E. What is the lease liability on December 31, 20X2?
F. What is depreciation expense in 20X1?
G. What is pre-tax income in 20X1?
H. What is net income in 20X1?
I. What is net income in 20X2?
J. What are operating cash flow, financing cash flow, and total cash flow in 20X1 for GAAP?
K. What are operating cash flow, financing cash flow, and total cash flow in 20X2 for GAAP?
L. What is the return on equity in 20X1?
M. What is the return on equity in 20X2?
N. What is the debt-to-equity ratio on 12/31/20X1?
O. What is the debt-to-equity ratio on 12/31/20X2?

Check your solutions with the practice problems on the discussion forum. The figures differ, but the formulas are the same.