

NOTE: Type your name in cell G1

Multiple Choice

- | | |
|----|---|
| 1 | D |
| 2 | A |
| 3 | D |
| 4 | C |
| 5 | C |
| 6 | E |
| 7 | C |
| 8 | C |
| 9 | B |
| 10 | A |
| 11 | C |
| 12 | E |
| 13 | C |
| 14 | B |
| 15 | D |
| 16 | A |
| 17 | E |
| 18 | D |

Answer Key

Problem 1 (13 points) Harper Co. shows the following information on its most recent income statement: sales = \$127,000, costs = \$64,300, other expenses = \$3,800, depreciation expense = \$9,600, interest expense = \$7,100, taxes = \$15,210, dividends = \$8,400. In addition, you are told the firm issued \$2,500 in new equity during the year, and redeemed \$3,800 in outstanding long-term debt.

- What was the operating cash flow during the year?
- What was the total cash flow to creditors?
- What was the cash flow to stockholders?
- If net fixed asset increased by \$13,600 during the year, what was the addition to NWC?

Sales	\$	127,000
Costs	\$	64,300
Other expenses	\$	3,800
Depreciation	\$	9,600
Interest	\$	7,100
Taxes	\$	15,210
Dividends	\$	8,400
New equity	\$	2,500
Change in long-term debt	\$	(3,800)
Change in net fixed assets	\$	13,600

Sales	\$	127,000
Costs		64,300
Other expenses		3,800
Depreciation		9,600
EBIT	\$	49,300
Int		7,100
EBT	\$	42,200
Taxes		15,210
Net income	\$	26,990

Dividends	\$	8,400
Add. to RE	\$	18,590

OCF	\$	43,690
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Interest paid	\$	7,100
-Net new borrowing		(3,800)
Cash flow to Creditors	\$	10,900

Dividends paid	\$	8,400
-Net new equity		2,500
Cash flow to stockholders	\$	5,900

Cash flow from assets		
CFC	\$	10,900
CFS		5,900
	\$	16,800

Net capital spending		
Depreciation	\$	9,600
Inc in fixed assets		13,600
	\$	23,200

Using the cash flow identity:

Change in NWC	\$	3,690
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Answer Key

Problem 2 (10 points) You borrow \$250,000 to purchase a house. The loan will be repaid over the next 25 years with equal monthly payments. Your mortgage broker quotes you an APR of 4.9 percent. Construct a loan amortization table for the first 12 months of the loan.

Amount borrowed	\$	250,000
Retirement age		25
Interest rate		4.9%

Monthly payment \$1,446.95

Month	Beginning Balance	Total Payment	Interest Payment	Pincipal Payment	Ending Balance
1	\$ 250,000.00	\$1,446.95	\$1,020.83	\$426.11	\$ 249,573.89
2	249,573.89	1,446.95	1,019.09	427.85	249,146.03
3	249,146.03	1,446.95	1,017.35	429.60	248,716.43
4	248,716.43	1,446.95	1,015.59	431.35	248,285.08
5	248,285.08	1,446.95	1,013.83	433.12	247,851.96
6	247,851.96	1,446.95	1,012.06	434.88	247,417.08
7	247,417.08	1,446.95	1,010.29	436.66	246,980.42
8	246,980.42	1,446.95	1,008.50	438.44	246,541.98
9	246,541.98	1,446.95	1,006.71	440.23	246,101.74
10	246,101.74	1,446.95	1,004.92	442.03	245,659.71
11	245,659.71	1,446.95	1,003.11	443.84	245,215.88
12	245,215.88	1,446.95	1,001.30	445.65	244,770.23

Answer Key

Problem 4 (13 points) You are saving for retirement and currently have \$125,000 in your retirement account. You plan to save an additional \$500 per month for the next 25 years. When you retire, you will make monthly withdrawals for 30 years. Additionally, you want to go on a trip around the world in 10 years. You expect the cost of the trip will be \$100,000. You can earn a 10.2 percent APR before you retire and a 6.1 percent APR after you retire. How much can you withdraw each month and have nothing left at the end of 30 years?

Current account value	\$	125,000
Savings per month	\$	500
Years to save		25
Years for withdrawals		30
Year for trip		10
Cost of trip	\$	100,000
Pre-retirement APR		10.20%
Post-retirement APR		6.10%

Value in 10 years \$448,762.20

Account value after trip \$348,762.20

Account value at retirement \$1,811,347.96

Monthly withdrawal **\$10,976.67**