

Week 1

HW1A Financial statements

Question 1

Flight Corporation has sales of \$4,634,642; income tax of \$445,382; the selling, general and administrative expenses of \$290,908; depreciation of \$313,855; cost of goods sold of \$2,922,667; and interest expense of \$188,204. What is the amount of the firm's EBIT?

Your Answer:

Question 1 options:

Answer

[View hint for Question 1](#)

Review the structure of the Income Statement.

In this problem depreciation is NOT the part of general and administrative expenses.

[Hide Check my answer](#)

EBIT = Sales - COGS - general and administrative expenses - depreciation = **1,107,212**

Question 2

Evening Dreams Corporation has sales of \$4,023,441; income tax of \$388,838; the selling, general and administrative expenses of \$273,421; depreciation of \$361,591; cost of goods sold of \$2,779,606; and interest expense of \$147,342. Calculate the amount of the firm's gross profit.

Your Answer:

Question 2 options:

Answer

[View hint for Question 2](#)

Review the structure of the Income Statement.

[Hide Check my answer](#)

Gross profit = Sales - COGS = 1,243,835

Question 3

Drum Corporation has sales of \$4,475,871; income tax of \$549,301; the selling, general and administrative expenses of \$292,623; depreciation of \$300,814; cost of goods sold of \$2,830,748; and interest expense of \$177,326. Calculate the amount of the firm's income before tax?

Your Answer:

Question 3 options:

Answer

[View hint for Question 3](#)

Review the structure of the Income Statement.

In this problem depreciation is NOT the part of general and administrative expenses.

[Hide Check my answer](#)

Income before tax = Sales - COGS - general and administrative expenses - depreciation - Interest = 874,360

Question 4

Blue Sky Corporation has sales of \$4,891,454; income tax of \$441,019; the selling, general and administrative expenses of \$234,428; depreciation of \$364,786; cost of goods sold of \$2,886,308; and interest expense of \$100,564. Calculate the firm's net income?

Your Answer:

Question 4 options:

Answer

[View hint for Question 4](#)

Review the structure of the Income Statement.

In this problem depreciation is NOT the part of general and administrative expenses.

[Hide Check my answer](#)

Net income = Sales - COGS - general and administrative expenses - depreciation - interest - taxes
=864,349

Question 5

Big House, Inc. has the following balance sheet statement items: total current liabilities of \$659,637; net fixed and other assets of \$1,220,720; total assets of \$3,130,473; and long-term debt of \$870,527. What is the amount of the firm's current assets?

Your Answer:

Question 5 options:

Answer

[View hint for Question 5](#)

Review the structure of the Balance Sheet.

Remember that total assets = current assets + net fixed and other assets.

[Hide Check my answer](#)

current assets = total assets - net fixed and other assets = 1,909,753

Question 6

Yellow Dalia, Inc. has the following balance sheet statement items: current liabilities of \$611,948; net fixed and other assets of \$1,112,085; total assets of \$2,942,814; and long-term debt of \$658,913. What is the amount of the firm's total stockholder's equity?

Your Answer:

Question 6 options:

Answer

[View hint for Question 6](#)

Review the structure of the Balance Sheet.

Remember that total assets = total liabilities + total stockholder's equity

[Hide Check my answer](#)

total stockholder's equity = total assets - current liabilities - long-term debt = **1,671,953**

Question 7

Kids Camp, Inc. has the following balance sheet statement items: current liabilities of \$818,443; net fixed and other assets of \$1,690,359; total assets of \$3,320,022; and long-term debt of \$887,587. What is the amount of the firm's net working capital?

Your Answer:

Question 7 options:

Answer

[View hint for Question 7](#)

Net working capital = current assets - current liabilities

Step 1: Calculate current assets. Remember that total assets = current assets + net fixed and other assets

Step 2: Calculate net working capital

[Hide Check my answer](#)

Step 1: current assets = total assets - net fixed and other assets = \$3,320,022 - \$1,690,359 = \$1,629,663

Step 2: net working capital = current assets - current liabilities = \$1,629,663 - \$818,443 = **\$811,220**

Question 8

Tomy Duck Corporation has sales of \$4,791,565; income tax of \$347,096; the selling, general and administrative expenses of \$240,937; depreciation of \$376,808; cost of goods sold of \$2,488,231; and interest expense of \$157,145. Calculate the amount of the firm's after-tax cash flow from operations?

Your Answer:

Question 8 options:

Answer

[View hint for Question 8](#)

After-tax cash flow from operations = EBIT - Taxes + Depreciation

In this problem depreciation is NOT the part of general and administrative expenses.

Step 1: Calculate EBIT

Ste 2: Calculate After-tax cash flow from operations

[Hide Check my answer](#)

Step 1: EBIT = Sales - COGS - general and administrative expenses - depreciation = \$4,791,565 - \$2,488,231 - \$240,937 - \$376,808 = \$1,685,589

After-tax cash flow from operations = EBIT - Taxes + Depreciation = \$1,685,589 - \$ 347,096 + 376,808 = **\$1,715,301**

HW1B Return on Investment ratios

Question 1

Iberian Ham Inc. financial statements are presented in the table below.

Based on the information in the table, calculate the firm's Basic Earning Power ratio.

Round the answers to two decimal places in percentage form. (Write the percentage sign in the "units" box).

Balance Sheet December 31, 20XX

Cash and marketable securities	\$100,000	Accounts payable	\$200,000
Accounts receivable	\$300,000	Notes payable	\$50,000
Inventories	\$500,000	Accrued expenses	\$60,000
Prepaid expenses	\$10,000	Total current liabilities	\$310,000
Total current assets	\$910,000	Long-term debt	\$300,000
Gross fixed assets	\$1,600,000	Par value and paid-in-capital	\$200,000
Less: accumulated depreciation	\$400,000	Retained Earnings	\$1,300,000
Net fixed assets	\$1,200,000	Common Equity	1,500,000
Total assets	\$2,110,000	Total liabilities and owner's equity	\$2,110,000

Income Statement, Year of 20XX

Net sales (all credit)	\$4,000,000.00
Less: Cost of goods sold	\$2,800,000.00
Selling and administrative expenses	\$300,000.00
Depreciation expense	\$100,000.00
EBIT	\$800,000.00
Interest expense	\$30,000.00
Earnings before taxes	\$770,000.00
Income taxes	\$308,000.00
Net income	\$462,000.00

Your Answer:

Question 1 options:

Answer

units

[View hint for Question 1](#)

Basic Earning Power ratio = EBIT/Total Assets

[Hide Check my answer](#)

Basic Earning Power ratio = EBIT/Total Assets = \$800,000/\$2,110,000 = 37.91%

Question 2

Iberian Ham Inc. financial statements are presented in the table below.

Based on the information in the table, calculate Return on Assets.

Round the answers to two decimal places in percentage form. (Write the percentage sign in the "units" box).

Balance Sheet December 31, 20XX

Cash and marketable securities	\$100,000	Accounts payable	\$200,000
Accounts receivable	\$300,000	Notes payable	\$50,000
Inventories	\$500,000	Accrued expenses	\$60,000
Prepaid expenses	\$10,000	Total current liabilities	\$310,000
Total current assets	\$910,000	Long-term debt	\$300,000
Gross fixed assets	\$1,600,000	Par value and paid-in-capital	\$200,000
Less: accumulated depreciation	\$400,000	Retained Earnings	\$1,300,000
Net fixed assets	\$1,200,000	Common Equity	1,500,000
Total assets	\$2,110,000	Total liabilities and owner's equity	\$2,110,000

Income Statement, Year of 20XX

Net sales (all credit)	\$4,000,000.00
Less: Cost of goods sold	\$2,800,000.00
Selling and administrative expenses	\$300,000.00
Depreciation expense	\$100,000.00
EBIT	\$800,000.00
Interest expense	\$30,000.00
Earnings before taxes	\$770,000.00
Income taxes	\$308,000.00
Net income	\$462,000.00

Your Answer:

Question 2 options:

Answer

units

[View hint for Question 2](#)

$$\text{ROA} = \text{Net income} / \text{Total Assets}$$

[Hide Check my answer](#)

$$\text{ROA} = \text{Net income} / \text{Total Assets} = \$462,000 / \$2,110,000 = 21.90\%$$

Question 3

Iberian Ham Inc. financial statements are presented in the table below.

Based on the information in the table, calculate Return on Common Equity.

Round the answers to two decimal places in percentage form. (Write the percentage sign in the "units" box).

Balance Sheet December 31, 20XX

Cash and marketable securities	\$100,000	Accounts payable	\$200,000
Accounts receivable	\$300,000	Notes payable	\$50,000
Inventories	\$500,000	Accrued expenses	\$60,000
Prepaid expenses	\$10,000	Total current liabilities	\$310,000
Total current assets	\$910,000	Long-term debt	\$300,000
Gross fixed assets	\$1,600,000	Par value and paid-in-capital	\$200,000
Less: accumulated depreciation	\$400,000	Retained Earnings	\$1,300,000
Net fixed assets	\$1,200,000	Common Equity	1,500,000
Total assets	\$2,110,000	Total liabilities and owner's equity	\$2,110,000

Income Statement, Year of 20XX

Net sales (all credit)	\$4,000,000.00
Less: Cost of goods sold	\$2,800,000.00
Selling and administrative expenses	\$300,000.00
Depreciation expense	\$100,000.00
EBIT	\$800,000.00
Interest expense	\$30,000.00
Earnings before taxes	\$770,000.00
Income taxes	\$308,000.00
Net income	\$462,000.00

Your Answer:

Question 3 options:

Answer

units

[View hint for Question 3](#)

Return on Common Equity = Net Income / Common Equity

[Hide Check my answer](#)

Return on Common Equity = Net Income / Common Equity = 30.80%

HW1C (Operating Performance ratios)

Question 1

- a) Iberian Ham Inc. financial statements are presented in the table below.

Based on the information in the table, and using a 365-day year, calculate Average Day's Cost of Goods Sold.

Round the answers to two decimal places

Balance Sheet December 31, 20XX

Cash and marketable securities	\$100,000	Accounts payable	\$200,000
Accounts receivable	\$300,000	Notes payable	\$50,000
Inventories	\$500,000	Accrued expenses	\$60,000
Prepaid expenses	\$10,000	Total current liabilities	\$310,000
Total current assets	\$910,000	Long-term debt	\$300,000
Gross fixed assets	\$1,600,000	Par value and paid-in-capital	\$200,000
Less: accumulated depreciation	\$400,000	Retained Earnings	\$1,300,000

Net fixed assets	\$1,200,000	<i>Common Equity</i>	<i>1,500,000</i>
Total assets	\$2,110,000	Total liabilities and owner's equity	\$2,110,000

Income Statement, Year of 20XX

Net sales (all credit)	\$4,000,000.00
Less: Cost of goods sold	\$2,800,000.00
Selling and administrative expenses	\$300,000.00
Depreciation expense	\$100,000.00
EBIT	\$800,000.00
Interest expense	\$30,000.00
Earnings before taxes	\$770,000.00
Income taxes	\$308,000.00
Net income	\$462,000.00

Your Answer:

Question 1 options:

Answer

[View hint for Question 1](#)

Average Day's Cost of Goods Sold = $\text{COGS}/365$

[Hide Check my answer](#)

Average Day's Cost of Goods Sold = $\text{COGS}/365 = \$7,671.23$

Question 2

a) Iberian Ham Inc. financial statements are presented in the table below.

Based on the information in the table, and using cost of goods sold and a 365-day year, calculate Days of Sales in Inventory (using cost of goods sold).

Round the answers to two decimal places

Balance Sheet December 31, 20XX

Cash and marketable securities	\$100,000	Accounts payable	\$200,000
Accounts receivable	\$300,000	Notes payable	\$50,000
Inventories	\$500,000	Accrued expenses	\$60,000
Prepaid expenses	\$10,000	Total current liabilities	\$310,000
Total current assets	\$910,000	Long-term debt	\$300,000
Gross fixed assets	\$1,600,000	Par value and paid-in-capital	\$200,000
Less: accumulated depreciation	\$400,000	Retained Earnings	\$1,300,000
Net fixed assets	\$1,200,000	Common Equity	1,500,000
Total assets	\$2,110,000	Total liabilities and owner's equity	\$2,110,000

Income Statement, Year of 20XX

Net sales (all credit)	\$4,000,000.00
Less: Cost of goods sold	\$2,800,000.00
Selling and administrative expenses	\$300,000.00
Depreciation expense	\$100,000.00
EBIT	\$800,000.00
Interest expense	\$30,000.00

Earnings before taxes	\$770,000.00
Income taxes	\$308,000.00
Net income	\$462,000.00

Your Answer:

Question 2 options:

Answer

[View hint for Question 2](#)

Step 1: Calculate Average Day's Cost of Good Sold = $CPGS/365$

Step 2: Calculate Days of Sales in Inventory = $Inventories / \text{Average Day's Cost of Good Sold}$

[Hide Check my answer](#)

Step 1: Average Day's Cost of Goods Sold = $COGS/365 = \$7,671.23$

Step 2: Days of Sales in Inventory = $Inventories / \text{Average Day's Cost of Good Sold}$
 $\$500,000/\$7,671.23 = 65.18$

Question 3

- a) Iberian Ham Inc. financial statements are presented in the table below.

Based on the information in the table, and using a 365-day year, calculate Average Credit Sales per Day.

Round the answers to two decimal places

Balance Sheet December 31, 20XX

Cash and marketable securities	\$100,000	Accounts payable	\$200,000
Accounts receivable	\$300,000	Notes payable	\$50,000

Inventories	\$500,000	Accrued expenses	\$60,000
Prepaid expenses	\$10,000	Total current liabilities	\$310,000
Total current assets	\$910,000	Long-term debt	\$300,000
Gross fixed assets	\$1,600,000	Par value and paid-in-capital	\$200,000
Less: accumulated depreciation	\$400,000	Retained Earnings	\$1,300,000
Net fixed assets	\$1,200,000	Common Equity	1,500,000
Total assets	\$2,110,000	Total liabilities and owner's equity	\$2,110,000

Income Statement, Year of 20XX

Net sales (all credit)	\$4,000,000.00
Less: Cost of goods sold	\$2,800,000.00
Selling and administrative expenses	\$300,000.00
Depreciation expense	\$100,000.00
EBIT	\$800,000.00
Interest expense	\$30,000.00
Earnings before taxes	\$770,000.00
Income taxes	\$308,000.00
Net income	\$462,000.00

Your Answer:

Question 3 options:

Answer

[View hint for Question 3](#)

In this problem all sales are on credit.

$$\text{Average Credit Sales per Day} = \text{Credit Sales}/365$$

[Hide Check my answer](#)

$$\text{Average Credit Sales per Day} = \text{Credit Sales}/365 = \$4,000,000/365 = \$10,958.90$$

Question 4

Iberian Ham Inc. financial statements are presented in the table below.

Based on the information in the table, and using a 365-day year, calculate the average collection period (also called Days of Sales in Receivables or Number of Days of Credit).

Round the answers to two decimal places

Balance Sheet December 31, 20XX

Cash and marketable securities	\$100,000	Accounts payable	\$200,000
Accounts receivable	\$300,000	Notes payable	\$50,000
Inventories	\$500,000	Accrued expenses	\$60,000
Prepaid expenses	\$10,000	Total current liabilities	\$310,000
Total current assets	\$910,000	Long-term debt	\$300,000
Gross fixed assets	\$1,600,000	Par value and paid-in-capital	\$200,000
Less: accumulated depreciation	\$400,000	Retained Earnings	\$1,300,000
Net fixed assets	\$1,200,000	Common Equity	1,500,000
Total assets	\$2,110,000	Total liabilities and owner's equity	\$2,110,000

Income Statement, Year of 20XX

Net sales (all credit)	\$4,000,000.00
Less: Cost of goods sold	\$2,800,000.00
Selling and administrative expenses	\$300,000.00
Depreciation expense	\$100,000.00
EBIT	\$800,000.00
Interest expense	\$30,000.00
Earnings before taxes	\$770,000.00
Income taxes	\$308,000.00
Net income	\$462,000.00

Your Answer:

Question 4 options:

Answer

[View hint for Question 4](#)

Step 1: Calculate Average Credit Sales per Day = Credit Sales/365

Step 2: Days of Sales in Receivables = Accounts Receivable / Average Credit Sales per Day

[Hide Check my answer](#)

Step 1: Credit Sales/365 = \$4,000,000/365 = \$10,958.90

Step 2: Days of Sales in Receivables = Accounts Receivable / Average Credit Sales per Day = \$300,000 / \$10,958.90 = 27.38

HW1D (Liquidity Ratios)

Question 1

Iberian Ham Inc. financial statements are presented in the table below.

Based on the information in the table, calculate the firm's current ratio.

Round the answers to two decimal places

Balance Sheet December 31, 20XX

Cash and marketable securities	\$100,000	Accounts payable	\$200,000
Accounts receivable	\$300,000	Notes payable	\$50,000
Inventories	\$500,000	Accrued expenses	\$60,000
Prepaid expenses	\$10,000	Total current liabilities	\$310,000
Total current assets	\$910,000	Long-term debt	\$300,000
Gross fixed assets	\$1,600,000	Par value and paid-in-capital	\$200,000
Less: accumulated depreciation	\$400,000	Retained Earnings	\$1,300,000
Net fixed assets	\$1,200,000	Common Equity	1,500,000
Total assets	\$2,110,000	Total liabilities and owner's equity	\$2,110,000

Income Statement, Year of 20XX

Net sales (all credit)	\$4,000,000.00
Less: Cost of goods sold	\$2,800,000.00
Selling and administrative expenses	\$300,000.00
Depreciation expense	\$100,000.00
EBIT	\$800,000.00

Interest expense	\$30,000.00
Earnings before taxes	\$770,000.00
Income taxes	\$308,000.00
Net income	\$462,000.00

Your Answer:

Question 1 options:

Answer

[View hint for Question 1](#)

Current Ratio = Current Assets / Current Liabilities

[Hide Check my answer](#)

Current Ratio = Current Assets / Current Liabilities = \$910,000 / \$310,000 = 2.94

Question 2

Iberian Ham Inc. financial statements are presented in the table below.

Based on the information in the table, calculate the firm's acid-test ratio (quick ratio).

Round the answers to two decimal places

Balance Sheet December 31, 20XX

Cash and marketable securities	\$100,000	Accounts payable	\$200,000
Accounts receivable	\$300,000	Notes payable	\$50,000
Inventories	\$500,000	Accrued expenses	\$60,000
Prepaid expenses	\$10,000	Total current liabilities	\$310,000

Total current assets	\$910,000	Long-term debt	\$300,000
Gross fixed assets	\$1,600,000	Par value and paid-in-capital	\$200,000
Less: accumulated depreciation	\$400,000	Retained Earnings	\$1,300,000
Net fixed assets	\$1,200,000	Common Equity	1,500,000
Total assets	\$2,110,000	Total liabilities and owner's equity	\$2,110,000

Income Statement, Year of 20XX

Net sales (all credit)	\$4,000,000.00
Less: Cost of goods sold	\$2,800,000.00
Selling and administrative expenses	\$300,000.00
Depreciation expense	\$100,000.00
EBIT	\$800,000.00
Interest expense	\$30,000.00
Earnings before taxes	\$770,000.00
Income taxes	\$308,000.00
Net income	\$462,000.00

Your Answer:

Question 2 options:

Answer

[View hint for Question 2](#)

Acid-test ratio (quick ratio) = (Current Assets - Inventories) / Current Liabilities

[Hide Check my answer](#)

Acid-test ratio (quick ratio) = (Current Assets - Inventories) / Current Liabilities = (\$910,000 - \$500,000) / \$310,000 = 1.32

Question 3

Iberian Ham Inc. financial statements are presented in the table below.

Based on the information in the table, calculate the firm's the net-working capital – to-sales ratio.

Round the answers to two decimal places in percentage form. (Write the percentage sign in the "units" box).

Balance Sheet December 31, 20XX

Cash and marketable securities	\$100,000	Accounts payable	\$200,000
Accounts receivable	\$300,000	Notes payable	\$50,000
Inventories	\$500,000	Accrued expenses	\$60,000
Prepaid expenses	\$10,000	Total current liabilities	\$310,000
Total current assets	\$910,000	Long-term debt	\$300,000
Gross fixed assets	\$1,600,000	Par value and paid-in-capital	\$200,000
Less: accumulated depreciation	\$400,000	Retained Earnings	\$1,300,000
Net fixed assets	\$1,200,000	Common Equity	1,500,000
Total assets	\$2,110,000	Total liabilities and owner's equity	\$2,110,000

Income Statement, Year of 20XX

Net sales (all credit)	\$4,000,000.00
Less: Cost of goods sold	\$2,800,000.00

Selling and administrative expenses	\$300,000.00
Depreciation expense	\$100,000.00
EBIT	\$800,000.00
Interest expense	\$30,000.00
Earnings before taxes	\$770,000.00
Income taxes	\$308,000.00
Net income	\$462,000.00

Your Answer:

Question 3 options:

Answer

units

[View hint for Question 3](#)

Net-working capital – to-sales ratio = (Current Assets - Current Liabilities) / Sales

The answer is in percentage form.

Round the answers to two decimal places in percentage form. (Write the percentage sign in the "units" box)

[Hide Check my answer](#)

Net-working capital – to-sales ratio = (Current Assets - Current Liabilities) / Sales = $(\$910,000 - \$310,000) / \$4,000,000 = 0.15 = 15.00\%$

The answer is in percentage form.

Round the answers to two decimal places in percentage form. (Write the percentage sign in the "units" box)

HW1D (Profitability Ratios)

Question 1

Iberian Ham Inc. financial statements are presented in the table below.

Based on the information in the table, calculate the firm's gross profit margin.

Round the answers to two decimal places in percentage form. (Write the percentage sign in the "units" box).

Balance Sheet December 31, 20XX

Cash and marketable securities	\$100,000	Accounts payable	\$200,000
Accounts receivable	\$300,000	Notes payable	\$50,000
Inventories	\$500,000	Accrued expenses	\$60,000
Prepaid expenses	\$10,000	Total current liabilities	\$310,000
Total current assets	\$910,000	Long-term debt	\$300,000
Gross fixed assets	\$1,600,000	Par value and paid-in-capital	\$200,000
Less: accumulated depreciation	\$400,000	Retained Earnings	\$1,300,000
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Depreciation expense	\$100,000.00
EBIT	\$800,000.00
Interest expense	\$30,000.00
Earnings before taxes	\$770,000.00
Income taxes	\$308,000.00
Net income	\$462,000.00

Your Answer:

Question 1 options:

Answer

units

[View hint for Question 1](#)

Gross profit margin = Gross profit/Sales = (Sales - COGS) / Sales

The answer is in percentage form.

Round the answers to two decimal places in percentage form. (Write the percentage sign in the "units" box).

[Hide Check my answer](#)

Gross profit margin = Gross profit/Sales = (Sales - COGS) / Sales = (\$4,000,000 - \$2,800,000) / \$4,000,000 = 0.30 = 30%

The answer is in percentage form.

Round the answers to two decimal places in percentage form. (Write the percentage sign in the "units" box).

Question 2

Iberian Ham Inc. financial statements are presented in the table below.

Based on the information in the table, calculate the firm's the operating profit margin.

Round the answers to two decimal places in percentage form. (Write the percentage sign in the "units" box).

Balance Sheet December 31, 20XX

Cash and marketable securities	\$100,000	Accounts payable	\$200,000
Accounts receivable	\$300,000	Notes payable	\$50,000
Inventories	\$500,000	Accrued expenses	\$60,000
Prepaid expenses	\$10,000	Total current liabilities	\$310,000
Total current assets	\$910,000	Long-term debt	\$300,000
Gross fixed assets	\$1,600,000	Par value and paid-in-capital	\$200,000
Less: accumulated depreciation	\$400,000	Retained Earnings	\$1,300,000
Net fixed assets	\$1,200,000	Common Equity	1,500,000
Total assets	\$2,110,000	Total liabilities and owner's equity	\$2,110,000

Income Statement, Year of 20XX

Net sales (all credit)	\$4,000,000.00
Less: Cost of goods sold	\$2,800,000.00
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Depreciation expense	\$100,000.00
EBIT	\$800,000.00
Interest expense	\$30,000.00
Earnings before taxes	\$770,000.00

Income taxes	\$308,000.00
Net income	\$462,000.00

Your Answer:

Question 2 options:

Answer

units

[View hint for Question 2](#)

Operating Profit Margin = EBIT/Sales

The answer is in percentage form.

Round the answers to two decimal places in percentage form. (Write the percentage sign in the "units" box).

[Hide Check my answer](#)

Operating profit margin = EBIT/Sales = \$800,000 / \$4,000,000 = 0.20 = 20%

The answer is in percentage form.

Round the answers to two decimal places in percentage form. (Write the percentage sign in the "units" box).

Question 3

Iberian Ham Inc. financial statements are presented in the table below.

Based on the information in the table, calculate the firm's net profit margin.

Round the answers to two decimal places in percentage form. (Write the percentage sign in the "units" box).

Balance Sheet December 31, 20XX

Cash and marketable securities	\$100,000	Accounts payable	\$200,000
Accounts receivable	\$300,000	Notes payable	\$50,000
Inventories	\$500,000	Accrued expenses	\$60,000
Prepaid expenses	\$10,000	Total current liabilities	\$310,000
Total current assets	\$910,000	Long-term debt	\$300,000
Gross fixed assets	\$1,600,000	Par value and paid-in-capital	\$200,000
Less: accumulated depreciation	\$400,000	Retained Earnings	\$1,300,000
Net fixed assets	\$1,200,000	Common Equity	1,500,000
Total assets	\$2,110,000	Total liabilities and owner's equity	\$2,110,000

Income Statement, Year of 20XX

Net sales (all credit)	\$4,000,000.00
Less: Cost of goods sold	\$2,800,000.00
Selling and administrative expenses	\$300,000.00
Depreciation expense	\$100,000.00
EBIT	\$800,000.00
Interest expense	\$30,000.00
Earnings before taxes	\$770,000.00
Income taxes	\$308,000.00
Net income	\$462,000.00

Your Answer:

Question 3 options:

Answer

units

[View hint for Question 3](#)

Net profit margin = Net income/Sales

The answer is in percentage form.

Round the answers to two decimal places in percentage form. (Write the percentage sign in the "units" box).

[Hide Check my answer](#)

Net profit margin = Net income/Sales = \$462,000 /\$4,000,000 =0.1155 =11.55%

The answer is in percentage form.

Round the answers to two decimal places in percentage form. (Write the percentage sign in the "units" box).

HW1D (Profitability Ratios)

Question 1

Iberian Ham Inc. financial statements are presented in the table below.

Based on the information in the table, calculate the firm's gross profit margin.

Round the answers to two decimal places in percentage form. (Write the percentage sign in the "units" box).

Balance Sheet December 31, 20XX

Cash and marketable securities	\$100,000	Accounts payable	\$200,000
Accounts receivable	\$300,000	Notes payable	\$50,000
Inventories	\$500,000	Accrued expenses	\$60,000

Prepaid expenses	\$10,000	Total current liabilities	\$310,000
Total current assets	\$910,000	Long-term debt	\$300,000
Gross fixed assets	\$1,600,000	Par value and paid-in-capital	\$200,000
Less: accumulated depreciation	\$400,000	Retained Earnings	\$1,300,000
Net fixed assets	\$1,200,000	Common Equity	1,500,000
Total assets	\$2,110,000	Total liabilities and owner's equity	\$2,110,000

Income Statement, Year of 20XX

Net sales (all credit)	\$4,000,000.00
Less: Cost of goods sold	\$2,800,000.00
Selling and administrative expenses	\$300,000.00
Depreciation expense	\$100,000.00
EBIT	\$800,000.00
Interest expense	\$30,000.00
Earnings before taxes	\$770,000.00
Income taxes	\$308,000.00
Net income	\$462,000.00

Your Answer:

Question 1 options:

Answer

units

[View hint for Question 1](#)

Gross profit margin = Gross profit/Sales = (Sales - COGS) / Sales

The answer is in percentage form.

Round the answers to two decimal places in percentage form. (Write the percentage sign in the "units" box).

[Hide Check my answer](#)

Gross profit margin = Gross profit/Sales = (Sales - COGS) / Sales = (\$4,000,000 - \$2,800,000) / \$4,000,000 = 0.30 = 30%

The answer is in percentage form.

Round the answers to two decimal places in percentage form. (Write the percentage sign in the "units" box).

Question 2

Iberian Ham Inc. financial statements are presented in the table below.

Based on the information in the table, calculate the firm's the operating profit margin.

Round the answers to two decimal places in percentage form. (Write the percentage sign in the "units" box).

Balance Sheet December 31, 20XX

Cash and marketable securities	\$100,000	Accounts payable	\$200,000
Accounts receivable	\$300,000	Notes payable	\$50,000
Inventories	\$500,000	Accrued expenses	\$60,000
Prepaid expenses	\$10,000	Total current liabilities	\$310,000
Total current assets	\$910,000	Long-term debt	\$300,000
Gross fixed assets	\$1,600,000	Par value and paid-in-capital	\$200,000
Less: accumulated depreciation	\$400,000	Retained Earnings	\$1,300,000

Net fixed assets	\$1,200,000	<i>Common Equity</i>	<i>1,500,000</i>
Total assets	\$2,110,000	Total liabilities and owner's equity	\$2,110,000

Income Statement, Year of 20XX

Net sales (all credit)	\$4,000,000.00
Less: Cost of goods sold	\$2,800,000.00
Selling and administrative expenses	\$300,000.00
Depreciation expense	\$100,000.00
EBIT	\$800,000.00
Interest expense	\$30,000.00
Earnings before taxes	\$770,000.00
Income taxes	\$308,000.00
Net income	\$462,000.00

Your Answer:

Question 2 options:

Answer

units

[View hint for Question 2](#)

Operating Profit Margin = EBIT/Sales

The answer is in percentage form.

Round the answers to two decimal places in percentage form. (Write the percentage sign in the "units" box).

[Hide Check my answer](#)

Operating profit margin = EBIT/Sales = \$800,000 /\$4,000,000 =0.20 =20%

The answer is in percentage form.

Round the answers to two decimal places in percentage form. (Write the percentage sign in the "units" box).

Question 3

Iberian Ham Inc. financial statements are presented in the table below.

Based on the information in the table, calculate the firm's net profit margin.

Round the answers to two decimal places in percentage form. (Write the percentage sign in the "units" box).

Balance Sheet December 31, 20XX

Cash and marketable securities	\$100,000	Accounts payable	\$200,000
Accounts receivable	\$300,000	Notes payable	\$50,000
Inventories	\$500,000	Accrued expenses	\$60,000
Prepaid expenses	\$10,000	Total current liabilities	\$310,000
Total current assets	\$910,000	Long-term debt	\$300,000
Gross fixed assets	\$1,600,000	Par value and paid-in-capital	\$200,000
Less: accumulated depreciation	\$400,000	Retained Earnings	\$1,300,000
Net fixed assets	\$1,200,000	Common Equity	1,500,000
Total assets	\$2,110,000	Total liabilities and owner's equity	\$2,110,000

Income Statement, Year of 20XX

Net sales (all credit) \$4,000,000.00

Less: Cost of goods sold	\$2,800,000.00
Selling and administrative expenses	\$300,000.00
Depreciation expense	\$100,000.00
EBIT	\$800,000.00
Interest expense	\$30,000.00
Earnings before taxes	\$770,000.00
Income taxes	\$308,000.00
Net income	\$462,000.00

Your Answer:

Question 3 options:

Answer

units

[View hint for Question 3](#)

Net profit margin = Net income/Sales

The answer is in percentage form.

Round the answers to two decimal places in percentage form. (Write the percentage sign in the "units" box).

[Hide Check my answer](#)

Net profit margin = Net income/Sales = \$462,000 /\$4,000,000 =0.1155 =11.55%

The answer is in percentage form.

Round the answers to two decimal places in percentage form. (Write the percentage sign in the "units" box).

Self Assessment: HW1E (Activity Ratios)

Question 1

Iberian Ham Inc. financial statements are presented in the table below.

Based on the information in the table, calculate the firm's inventory turnover ratio.

Round the answers to two decimal places

Balance Sheet December 31, 20XX

Cash and marketable securities	\$100,000	Accounts payable	\$200,000
Accounts receivable	\$300,000	Notes payable	\$50,000
Inventories	\$500,000	Accrued expenses	\$60,000
Prepaid expenses	\$10,000	Total current liabilities	\$310,000
Total current assets	\$910,000	Long-term debt	\$300,000
Gross fixed assets	\$1,600,000	Par value and paid-in-capital	\$200,000
Less: accumulated depreciation	\$400,000	Retained Earnings	\$1,300,000
Net fixed assets	\$1,200,000	Common Equity	1,500,000
Total assets	\$2,110,000	Total liabilities and owner's equity	\$2,110,000

Income Statement, Year of 20XX

Net sales (all credit)	\$4,000,000.00
Less: Cost of goods sold	\$2,800,000.00
Selling and administrative expenses	\$300,000.00

Depreciation expense	\$100,000.00
EBIT	\$800,000.00
Interest expense	\$30,000.00
Earnings before taxes	\$770,000.00
Income taxes	\$308,000.00
Net income	\$462,000.00

Your Answer:

Question 1 options:

Answer

[View hint for Question 1](#)

Inventory turnover ratio = COGS/Inventories

[Hide Check my answer](#)

Inventory turnover ratio = COGS/Inventories = \$2,800,000/\$500,000 = 5.6

Question 2

Iberian Ham Inc. financial statements are presented in the table below.

Based on the information in the table, calculate the firm's accounts receivable turnover ratio.

Round the answers to two decimal places

Balance Sheet December 31, 20XX

Cash and marketable securities	\$100,000	Accounts payable	\$200,000
Accounts receivable	\$300,000	Notes payable	\$50,000

Inventories	\$500,000	Accrued expenses	\$60,000
Prepaid expenses	\$10,000	Total current liabilities	\$310,000
Total current assets	\$910,000	Long-term debt	\$300,000
Gross fixed assets	\$1,600,000	Par value and paid-in-capital	\$200,000
Less: accumulated depreciation	\$400,000	Retained Earnings	\$1,300,000
Net fixed assets	\$1,200,000	Common Equity	1,500,000
Total assets	\$2,110,000	Total liabilities and owner's equity	\$2,110,000

Income Statement, Year of 20XX

Net sales (all credit)	\$4,000,000.00
Less: Cost of goods sold	\$2,800,000.00
Selling and administrative expenses	\$300,000.00
Depreciation expense	\$100,000.00
EBIT	\$800,000.00
Interest expense	\$30,000.00
Earnings before taxes	\$770,000.00
Income taxes	\$308,000.00
Net income	\$462,000.00

Your Answer:

Question 2 options:

Answer

[View hint for Question 2](#)

Accounts receivable turnover ratio = Sales/accounts receivable

[Hide Check my answer](#)

Accounts receivable turnover ratio = Sales/accounts receivable = \$4,000,000 / \$300,000 = 13.33

Question 3

Iberian Ham Inc. financial statements are presented in the table below.

Based on the information in the table, calculate the firm's total assets turnover ratio.

Round the answers to two decimal places

Balance Sheet December 31, 20XX

Cash and marketable securities	\$100,000	Accounts payable	\$200,000
Accounts receivable	\$300,000	Notes payable	\$50,000
Inventories	\$500,000	Accrued expenses	\$60,000
Prepaid expenses	\$10,000	Total current liabilities	\$310,000
Total current assets	\$910,000	Long-term debt	\$300,000
Gross fixed assets	\$1,600,000	Par value and paid-in-capital	\$200,000
Less: accumulated depreciation	\$400,000	Retained Earnings	\$1,300,000
Net fixed assets	\$1,200,000	Common Equity	1,500,000
Total assets	\$2,110,000	Total liabilities and owner's equity	\$2,110,000

Income Statement, Year of 20XX

Net sales (all credit) \$4,000,000.00

Less: Cost of goods sold	\$2,800,000.00
Selling and administrative expenses	\$300,000.00
Depreciation expense	\$100,000.00
EBIT	\$800,000.00
Interest expense	\$30,000.00
Earnings before taxes	\$770,000.00
Income taxes	\$308,000.00
Net income	\$462,000.00

Your Answer:

Question 3 options:

Answer

[View hint for Question 3](#)

Total assets turnover ratio = Sales/total assets

[Hide Check my answer](#)

Total assets turnover ratio = Sales/total assets = \$4,000,000/\$2,110,000 = 1.90

Question 4

Iberian Ham Inc. financial statements are presented in the table below.

Based on the information in the table, calculate the firm's fixed asset turnover ratio.

Round the answers to two decimal places

Balance Sheet December 31, 20XX

Cash and marketable securities	\$100,000	Accounts payable	\$200,000
Accounts receivable	\$300,000	Notes payable	\$50,000
Inventories	\$500,000	Accrued expenses	\$60,000
Prepaid expenses	\$10,000	Total current liabilities	\$310,000
Total current assets	\$910,000	Long-term debt	\$300,000
Gross fixed assets	\$1,600,000	Par value and paid-in-capital	\$200,000
Less: accumulated depreciation	\$400,000	Retained Earnings	\$1,300,000
Net fixed assets	\$1,200,000	Common Equity	1,500,000
Total assets	\$2,110,000	Total liabilities and owner's equity	\$2,110,000

Income Statement, Year of 20XX

Net sales (all credit)	\$4,000,000.00
Less: Cost of goods sold	\$2,800,000.00
Selling and administrative expenses	\$300,000.00
Depreciation expense	\$100,000.00
EBIT	\$800,000.00
Interest expense	\$30,000.00
Earnings before taxes	\$770,000.00
Income taxes	\$308,000.00
Net income	\$462,000.00

Your Answer:

Question 4 options:

Answer

[View hint for Question 4](#)

Fixed asset turnover ratio = Sales/Net fixed assets

[Hide Check my answer](#)

Fixed asset turnover ratio = Sales/Net fixed assets = $\$4,000,000/\$1,200,000 = 3.33$

Self Assessment: HW1E(Leverage Ratios)

Question 1

Iberian Ham Inc. financial statements are presented in the table below.

Based on the information in the table, calculate the firm's total debt-to-assets ratio (also called Debt ratio).

Round the answers to two decimal places in percentage form. (Write the percentage sign in the "units" box).

Balance Sheet December 31, 20XX

Cash and marketable securities	\$100,000	Accounts payable	\$200,000
Accounts receivable	\$300,000	Notes payable	\$50,000
Inventories	\$500,000	Accrued expenses	\$60,000
Prepaid expenses	\$10,000	Total current liabilities	\$310,000
Total current assets	\$910,000	Long-term debt	\$300,000
Gross fixed assets	\$1,600,000	Par value and paid-in-capital	\$200,000
Less: accumulated depreciation	\$400,000	Retained Earnings	\$1,300,000

Net fixed assets	\$1,200,000	<i>Common Equity</i>	<i>1,500,000</i>
Total assets	\$2,110,000	Total liabilities and owner's equity	\$2,110,000

Income Statement, Year of 20XX

Net sales (all credit)	\$4,000,000.00
Less: Cost of goods sold	\$2,800,000.00
Selling and administrative expenses	\$300,000.00
Depreciation expense	\$100,000.00
EBIT	\$800,000.00
Interest expense	\$30,000.00
Earnings before taxes	\$770,000.00
Income taxes	\$308,000.00
Net income	\$462,000.00

Your Answer:

Question 1 options:

Answer

units

[View hint for Question 1](#)

Total debt-to-assets ratio = total debt/total assets =(Current liabilities + Long-term debt) /Total assets

The answer is in percentage form.

Round the answers to two decimal places in percentage form. (Write the percentage sign in the "units" box).

[Hide Check my answer](#)

Total debt-to-assets ratio = total debt/total assets =(Current liabilities + Long-term debt) /Total assets = (\$310,000+\$300,000) /\$2,110,000 = 0.2891 = 28.91%

The answer is in percentage form.

Round the answers to two decimal places in percentage form. (Write the percentage sign in the "units" box).

Question 2

Iberian Ham Inc. financial statements are presented in the table below.

Based on the information in the table, calculate the firm's total debt-to-equity ratio.

Round the answers to two decimal places in percentage form. (Write the percentage sign in the "units" box).

Balance Sheet December 31, 20XX

Cash and marketable securities	\$100,000	Accounts payable	\$200,000
Accounts receivable	\$300,000	Notes payable	\$50,000
Inventories	\$500,000	Accrued expenses	\$60,000
Prepaid expenses	\$10,000	Total current liabilities	\$310,000
Total current assets	\$910,000	Long-term debt	\$300,000
Gross fixed assets	\$1,600,000	Par value and paid-in-capital	\$200,000
Less: accumulated depreciation	\$400,000	Retained Earnings	\$1,300,000
Net fixed assets	\$1,200,000	Common Equity	1,500,000

Total assets	\$2,110,000	Total liabilities and owner's equity	\$2,110,000
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Income Statement, Year of 20XX

Net sales (all credit)	\$4,000,000.00
Less: Cost of goods sold	\$2,800,000.00
Selling and administrative expenses	\$300,000.00
Depreciation expense	\$100,000.00
EBIT	\$800,000.00
Interest expense	\$30,000.00
Earnings before taxes	\$770,000.00
Income taxes	\$308,000.00
Net income	\$462,000.00

Your Answer:

Question 2 options:

Answer

units

[View hint for Question 2](#)

Total debt-to-equity ratio = total debt/Common equity =(Current liabilities + Long-term debt) /Common equity

The answer is in percentage form.

Round the answers to two decimal places in percentage form. (Write the percentage sign in the "units" box).

[Hide Check my answer](#)

Total debt-to-equity ratio = total debt/Common equity = (Current liabilities + Long-term debt) / Common equity = $(\$310,000 + \$300,000) / \$1,500,000 = 0.4067 = 40.67\%$

The answer is in percentage form.

Round the answers to two decimal places in percentage form. (Write the percentage sign in the "units" box).

Question 3

Iberian Ham Inc. financial statements are presented in the table below.

Based on the information in the table, calculate the firm's Interest Coverage ratio (also called Times Interest Earned).

Round the answers to two decimal places.

Balance Sheet December 31, 20XX

Cash and marketable securities	\$100,000	Accounts payable	\$200,000
Accounts receivable	\$300,000	Notes payable	\$50,000
Inventories	\$500,000	Accrued expenses	\$60,000
Prepaid expenses	\$10,000	Total current liabilities	\$310,000
Total current assets	\$910,000	Long-term debt	\$300,000
Gross fixed assets	\$1,600,000	Par value and paid-in-capital	\$200,000
Less: accumulated depreciation	\$400,000	Retained Earnings	\$1,300,000
Net fixed assets	\$1,200,000	Common Equity	1,500,000
Total assets	\$2,110,000	Total liabilities and owner's equity	\$2,110,000

Income Statement, Year of 20XX

Net sales (all credit)	\$4,000,000.00
Less: Cost of goods sold	\$2,800,000.00
Selling and administrative expenses	\$300,000.00
Depreciation expense	\$100,000.00
EBIT	\$800,000.00
Interest expense	\$30,000.00
Earnings before taxes	\$770,000.00
Income taxes	\$308,000.00
Net income	\$462,000.00

Your Answer:

Question 3 options:

Answer

[View hint for Question 3](#)

Interest Coverage ratio (also called Times Interest Earned) = EBIT/Interest Expense

[Hide Check my answer](#)

Interest Coverage ratio (also called Times Interest Earned) = EBIT/Interest Expense =
 $\$800,000/\$30,000 = 26.67$

Self Assessment: HW1B (DuPont analysis)

Question 1

Bridge, Inc. has a total asset turnover of 0.90 and a net profit margin of 4.28 percent. The total assets to equity ratio for the firm is 1.6. Calculate Vintage's return on equity.

Round the answers to two decimal places in percentage form. (Write the percentage sign in the "units" box).

Your Answer:

Question 1 options:

Answer

units

[Hide Check my answer](#)

ROE = net profit margin X total asset turnover X total assets to equity ratio = **6.16%**

Week 2

HW2A (FV and PV of a single amount annually)

Question 1

To what amount will the following investment accumulate?

\$8,999, invested today for 15 years at 3 percent, compounded annually.

Round the answer to two decimal places.

Your Answer:

Question 1 options:

Answer

[Hide Check my answer](#)

Open Excel. Click on Formulas – Financial – find the function FV

Enter:

Rate 3%

Nper 15

Pmt 0

PV 8999

Type 0

Get the answer 14020.15 (The answer appears in Excel as a negative number)

=FV(3%,15,0,8999,0) = 14,020.15

Question 2

You placed \$9,544 in a savings account today that earns an annual interest rate of 11 percent compounded annually. How much you will have in this account at the end of 2 years? Assume that all interest received at the end of the year is reinvested the next year.

Round the answer to two decimal places.

Your Answer:

Question 2 options:

Answer

[Hide Check my answer](#)

Open Excel. Click on Formulas – Financial – find the function FV

Enter:

Rate 11%

Nper 2

Pmt 0

PV 9544

Type 0

Get the answer 11759.16 **(The answer appears in Excel as a negative number)**

$=FV(11\%,2,0,9544,0) = 11759.16$

Question 3

What is the present value of the following future amount?

\$304,666, to be received 20 years from now, discounted back to the present at 6 percent, compounded annually.

Round the answer to two decimal places.

Your Answer:

Question 3 options:

Answer

[Hide Check my answer](#)

Open Excel. Click on Formulas – Financial – find the function PV

Enter:

Rate 6%

Nper 20

Pmt 0

FV 304666

Type 0

Get the answer 94996.30 (The answer appears in Excel as a negative number)

=PV(6%,20,0,304666,0) = 94996.30

Question 4

If you want to have \$372,585 in 9 years, how much money should you put in a savings account today? Assume that the savings account pays you 10.0 percent and it is compounded annually.

Round the answer to two decimal places

Your Answer:

Question 4 options:

Answer

[Hide Check my answer](#)

Open Excel. Click on Formulas – Financial – find the function PV

Enter:

Rate 10%

Nper 9

Pmt 0

FV 372,585

Type 0

Get the answer 158,012.41 (The answer appears in Excel as a negative number)

$$=PV(10\%,9,0,372585,0) = 158,012.41$$

Question 5

The local home improvement store has a washing machine on sale for \$1,509, with the payment due in 2 year(s) from today. The store is willing to discount the price at an annual rate of 2 percent (compounded annually) if you pay today. What is the amount if you pay for the washing machine today?

Round the answer to two decimal places

Your Answer:

Question 5 options:

Answer

[Hide Check my answer](#)

Open Excel. Click on Formulas – Financial – find the function PV

Enter:

Rate 2%

Nper 2

Pmt 0

FV 1509

Type 0

Get the answer 1450.40 (The answer appears in Excel as a negative number)

$$=PV(2\%,2,0,1509,0) = 1450.40$$

HW2B (Find Number of Periods or Find Growth Rate)

Question 1

How many years will the following take?
\$412 to grow to \$14,729 if invested at 9.23 percent, compounded annually.

Round the answer to two decimal places.

Your Answer:

Question 1 options:

Answer

[Hide Check my answer](#)

We will be using Excel function NPER (Formulas – Financial – NPER)

Enter:

Rate 9.23%

Pmt 0

PV -412 (must be entered as a negative number)

FV 14729

Type 0

Get the answer 40.51

$=\text{NPER}(9.23\%,0,-412,14729,0) = 40.51$

Question 2

Upon graduating from college, you make an annual salary of \$86,209. You set a goal to double it in the future. If your salary increases at an average annual rate of 3.67 percent, how long will it take to reach your goal?

Round the answer to two decimal places.

Your Answer:

Question 2 options:

Answer

[Hide Check my answer](#)

We will be using Excel function NPER (Formulas – Financial – NPER)

Enter:

Rate 3.67%

Pmt 0

PV -86209 (must be entered as a negative number)

FV 86209*2

Type 0

Get the answer 19.23

$=\text{NPER}(3.67\%,0,-86209,86209*2,0) = 19.23$

Question 3

Cooling Tools, Inc. is currently producing 643 of small refrigerators per month but the company's CEO plans to increase production at a rate of 10.99 percent per month until the firm is producing 7,282 of refrigerators per month. How many months will this take?

Round the answer to two decimal places.

Your Answer:

Question 3 options:

Answer

[Hide Check my answer](#)

We will be using Excel function NPER (Formulas – Financial – NPER)

Enter:

Rate 10.99%

Pmt 0

PV -643 (must be entered as a negative number)

FV 7282

Type 0

Get the answer 23.28

=NPER(10.99%,0,- 643, 7282,0) = 23.28

Question 4

At what annual rate would the following have to be invested?
\$2,701, to grow to \$78,675, in 39 years.

Round the answer to two decimal places in percentage form. (Write the percentage sign in the "units" box)

Your Answer:

Question 4 options:

Answer

units

[Hide Check my answer](#)

We will be using Excel function RATE (Formulas – Financial – RATE)

Enter:

Nper 39

Pmt 0

PV -2701 (must be entered as a negative number)

FV 78675

Type 0

Get the answer 9.03% (As a default, Excel shows the answer as a whole number. You have to increase the number of decimals to get the correct answer)

=RATE(39,0,-2701,78675,0) = 9.03%

Question 5

A firm's dividends have grown over the last several years. 8 years ago the firm paid a dividend of \$2. Yesterday it paid a dividend of \$7. What was the average annual growth rate of dividends for this firm?

Round the answer to two decimal places in percentage form. (Write the percentage sign in the "units" box)

Your Answer:

Question 5 options:

Answer

units

[Hide Check my answer](#)

We will be using Excel function RATE (Formulas – Financial – RATE)

Enter:

Nper 8

Pmt 0

PV -2 (must be entered as a negative number)

FV 7

Type 0

Get the answer 16.95% (As a default, Excel shows the answer as a whole number. You have to increase the number of decimals to get the correct answer)

=RATE(8,0,-2,7,0) = 16.95%

HW2C(FV and PV of a Single Amount Non-Annually)

Question 1

If you invest \$8,698 today at an interest rate of 7.01 percent, compounded daily, how much money will you have in your savings account in 7 years?

Round the answer to two decimal places.

Your Answer:

Question 1 options:

Answer

[Hide Check my answer](#)

Open Excel. Click on Formulas – Financial – find the function FV

Enter:

Rate 7.01%/365

Nper 7*365

Pmt 0

PV 8698

Type 0

Get the answer 14207.16 **(The answer appears in Excel as a negative number)**

$=FV(7.01\%/365,7*365,0,8698,0) = 14,207.16$

Question 2

To what amount will the following investment accumulate?

\$31,295, invested today for 18 years at 17.00 percent, compounded monthly.

Round the answer to two decimal places.

Your Answer:

Question 2 options:

Answer

[Hide Check my answer](#)

Open Excel. Click on Formulas – Financial – find the function FV

Enter:

Rate 17%/12

Nper 18*12

Pmt 0

PV 31295

Type 0

Get the answer 653266.98 (The answer appears in Excel as a negative number)

=FV(17%/12,18*12,0, 31295,0) = 653,266.98

Question 3

You placed \$9,990 in a savings account today that earns an annual interest rate of 11.95 percent, compounded semiannually. How much will you have in this account at the end of 8 years? Assume that all interest received at the end of the period is reinvested the next period.

Round the answer to two decimal places.

Your Answer:

Question 3 options:

Answer

[Hide Check my answer](#)

Open Excel. Click on Formulas – Financial – find the function FV

Enter:

Rate 11.95%/2

Nper 8*2

Pmt 0

PV 9990

Type 0

Get the answer 25282.52 (The answer appears in Excel as a negative number)

=FV(11.95%/2,8*2,0,9990,0) = 25282.52

Question 4

Stephen plans to purchase a car 5 years from now. The car will cost \$69,870 at that time. Assume that Stephen can earn 4.10 percent (compounded monthly) on his money. How much should he set aside today for the purchase?

Round the answer to two decimal places.

Your Answer:

Question 4 options:

Answer

[Hide Check my answer](#)

We are using Excel function PV. Click on Formulas – Financial – find the function PV

Enter:

Rate 4.10%/12

Nper 5*12

Pmt 0

FV 69870

Type 0

Get the answer 56,939.30 (The answer appears in Excel as a negative number)

=PV(4.10%/12,5*12,0,69870,0) = 56,939.30

Question 5

John plans to buy a vacation home in 5 years from now and wants to have saved \$77,549 for a down payment. How much money should he place today in a saving account that earns 6.50 percent per year (compounded daily) to accumulate money for his down payment? *Round the answer to two decimal places*

Your Answer:

Question 5 options:

Answer

[Hide Check my answer](#)

We are using Excel function PV. Click on Formulas – Financial – find the function PV

Enter:

Rate 6.5%/365

Nper 5*365

Pmt 0

FV 77549

Type 0

Get the answer 56,032.90 **(The answer appears in Excel as a negative number)**

$=PV(6.5\%/365,5*365,0,77549,0) = 56,032.90$

Question 6

Camila plans to go for vacation to Australia in 6 years from now. She estimates that she will need \$20,571 for the trip. How much does she need to place in a saving account today that earns 5.62 percent per year (compounded quarterly) to accumulate this amount?

Round the answer to two decimal places

Your Answer:

Question 6 options:

Answer

[Hide Check my answer](#)

We are using Excel function PV. Click on Formulas – Financial – find the function PV

Enter:

Rate 5.62%/4

Nper 6*4

Pmt 0

FV 20571

Type 0

Get the answer 14,717.38 (The answer appears in Excel as a negative number)

= PV(5.62%/4,6*4,0, 20571,0) = 14,717.38

= 14,717.38

HW2D(FV and PV of Ordinary Annuity Annually)

Question 1

What is the accumulated sum of the following stream of payments?
\$737 every year at the end of the year for 8 years at 8.25 percent, compounded annually.

Round the answer to two decimal places.

Your Answer:

Question 1 options:

Answer

[Hide Check my answer](#)

We will be using Excel function FV. Click on Formulas – Financial – find the function FV

Enter:

Rate 8.25%

Nper 8

Pmt 737

PV 0

Type 0

Get the answer 7,910.34 (The answer appears in Excel as a negative number)

=FV(8.25%,8,737,0,0) = 7,910.34

Question 2

For the next 8 years, you decide to place \$2,104 in equal year-end deposits into a savings account earning 10.11 percent per year. How much money will be in the account at the end of that time period?

Round the answer to two decimal places.

Your Answer:

Question 2 options:

Answer

[Hide Check my answer](#)

We will be using Excel function FV.

Enter:

Rate 10.11%

Nper 8

Pmt 2104

PV 0

Type 0

Get the answer 24157.45 (The answer appears in Excel as a negative number)

=FV(10.11%,8,2104,0,0) = 24157.45

Question 3

What is the present value of the following annuity?
\$2,907 every year at the end of the year for the next 12 years, discounted back to the present at 8.23 percent per year, compounded annually?

Round the answer to two decimal places.

Your Answer:

Question 3 options:

Answer

[Hide Check my answer](#)

We are using Excel. Click on Formulas – Financial – find the function PV

Enter:

Rate 8.23%

Nper 12

Pmt 2907

FV 0

Type 0

Get the answer 21648.69 (The answer appears in Excel as a negative number)

$$=PV(8.23\%,12,2907,0,0) = 21648.69$$

Question 4

You have accumulated some money for your retirement. You are going to withdraw \$77,816 every year at the end of the year for the next 26 years. How much money have you accumulated for your retirement? Your account pays you 11.74 percent per year, compounded annually. To answer this question, you have to find the present value of these cash flows.

Round the answer to two decimal places.

Your Answer:

Question 4 options:

Answer

[Hide Check my answer](#)

We are using Excel. Click on Formulas – Financial – find the function PV

Enter:

Rate 11.74%

Nper 26

Pmt 77816

FV 0

Type 0

Get the answer 625,847.21 (The answer appears in Excel as a negative number)

$$=PV(11.74\%,26,77816,0,0) = 625,847.21$$

HW2E(PV of Mixed Stream)

Question 1

You are given an investment to analyze. The cash flows from this investment are

End of year

1. \$14,410
2. \$1,010
3. \$21,250
4. \$29,510
5. \$2,990

What is the present value of this investment if 5 percent per year is the appropriate discount rate?

Round the answer to two decimal places.

Your Answer:

Question 1 options:

Answer

[Hide Check my answer](#)

We are using Excel function NPV. (Formulas – Financial -NPV)

Enter:

Rate 5%

Value 1 14410

Value 2 1010

Value 3 21250

Value 4 29510

Value 5 2990

Get the answer 59617.15

=NPV(5%,14410,1010,21250,29510,2990) = 59617.15

Question 2

You have just purchased an investment that generates the following cash flows for the next four years. You are able to reinvest these cash flows at 8.0 percent, compounded annually.

End of year

1. \$1,335
2. \$2,998
3. \$242
4. \$2,891

What is the present value of this investment if 8.0 percent per year is the appropriate discount rate?

Round the answer to two decimal places.

Your Answer:

Question 2 options:

Answer

[Hide Check my answer](#)

We are using Excel function NPV. (Formulas – Financial -NPV)

Enter:

Rate 8%

Value 1 1335

Value 2 2998

Value 3 242

Value 4 2891

Get the answer 6,123.49

$$=NPV(8\%,1335,2998,242,2891)= 6,123.49$$

Question 3

You have been offered the opportunity to invest in a project that will pay \$1,199 per year at the end of years one through three and \$14,027 per year at the end of years four and five. If the appropriate discount rate is 13.7 percent per year, what is the present value of this cash flow pattern?

Round the answer to two decimal places.

Your Answer:

Question 3 options:

Answer

[Hide Check my answer](#)

We are using Excel function NPV. (Formulas – Financial -NPV)

Enter:

Rate 13.7%

Value 1 1199

Value 2 1199

Value 3 1199

Value 4 14027

Value 5 14027

Get the answer 18,572.62

$$=NPV(13.7\%,1199,1199,1199,14027,14027) = 18,572.62$$

Week 3

HW3B (PV and FV of an ordinary annuity or an annuity due monthly, quarterly, or semiannually)

Question 1

What is the present value of the following annuity?

\$3,330 every half year at the beginning of the period for the next 8 years, discounted back to the present at 17.21 percent per year, compounded semiannually.

Round the answer to two decimal places.

Your Answer:

Question 1 options:

Answer

[Hide Check my answer](#)

$$=PV(17.21\%/2,8*2,3330,0,1) = 30,809.64$$

Question 2

You have decided to place \$800 in equal deposits every month at the beginning of the month into a savings account earning 9.31 percent per year, compounded monthly for the next 10 years. The first deposit is made today. How much money will be in the account at the end of that time period?

Round the answer to two decimal places.

Your Answer:

Question 2 options:

Answer

[Hide Check my answer](#)

$$=FV(9.31\%/12,10*12,800,0,1) = 158,776.39$$

Question 3

You plan to buy a house in 11 years. You want to save money for a down payment on the new house.

You are able to place \$429 every month at the end of the month into a savings account at an annual rate of 4.10 percent, compounded monthly. How much money will be in the account after you made the last payment?

Round the answer to two decimal places.

Your Answer:

Question 3 options:

Answer

[Hide Check my answer](#)

er: $FV(4.1\%/12,11*12,429,0,0) = 71,403.38$

Question 4

What is the present value of the following annuity?
\$4,684 every quarter year at the end of the quarter for the next 15 years,
discounted back to the present at 19.89 percent per year, compounded
quarterly?

Round the answer to two decimal places.

Your Answer:

Question 4 options:

Answer

[Hide Check my answer](#)

er: $PV(19.89\%/4,15*4,684,0,0)=89,075.26$

Question 5

You are going to save money for your son's education. You have decided to place
\$734 every half year at the end of the period into a saving account earning 8.08
percent per year, compounded semi-annually for the next 9 years. How much money
will be in the account at the end of that time period?

Round the answer to two decimal places.

Your Answer:

Question 5 options:

Answer

[Hide Check my answer](#)

$$=FV(8.08\%/2,9*2,734,0,0) = 18,893$$

Question 6

A car dealership offers you no money down on a new car. You may pay for the car for 4 years by equal monthly end-of-the-month payments of \$438 each, with the first payment to be made one month from today. If the discount annual rate is 17.31 percent compounded monthly, what is the present value of the car payments?

Round the answer to two decimal places.

Your Answer:

Question 6 options:

Answer

[Hide Check my answer](#)

$$PV(17.31\%/12,4*12,438,0,0) = 15,095.29$$

HW3A(FV and PV of annuity due annually)

Question 1

What is the accumulated sum of the following stream of payments?
\$9,677 every year at the beginning of the year for 5 years, at 8.82 percent, compounded annually.

Round the answer to two decimal places.

Your Answer:

Question 1 options:

Answer

[Hide Check my answer](#)

We are using Excel function FV (Formulas – Financial – FV)

Enter:

Rate 8.82%

Nper 5

Pmt 9677

PV 0

Type 1 (in this problem the payment occurs “every year at the beginning of the year”, so it is an annuity due, and we should use Type 1)

Get the answer 62,796.43 (The answer appears in Excel as a negative number)

=FV(8.82%,5,9677,0,1) = 62,796.43

Question 2

You have accumulated some money for your retirement. You are going to withdraw \$78,382 every year at the *beginning* of the year for the next 22 years starting from today. How much money have you accumulated for your retirement? Your account pays you 9.77 percent per year, compounded annually. To answer this question, you have to find the present value of these cash flows.

Round the answer to two decimal places.

Your Answer:

Question 2 options:

Answer

[Hide Check my answer](#)

We are using Excel function PV (Formulas – Financial – PV)

Enter:

Rate 9.77%

Nper 22

Pmt 78382

FV 0

Type 1 (in this problem “you are going to withdraw ...every year at the beginning of the year”, so it is an annuity due, and we should use Type 1)

Get the answer 767,371.24 (The answer appears in Excel as a negative number)

=PV(9.77%,22,78382,0,1) = 767,371.24

HW3C(How much will each annual payment be (Using FV or PV))

Question 1

Big Brothers, Inc. borrows \$134,407 from the bank at 5.70 percent per year, compounded annually, to purchase new machinery. This loan is to be repaid in equal annual installments at the end of each year over the next 4 years. How much will each annual payment be?

Round the answer to two decimal places.

Your Answer:

Question 1 options:

Answer

[Hide Check my answer](#)

We are using Excel function PMT (Formulas – Financial - PMT)

Enter:

Rate 5.7%

Nper 4

PV 134407

FV 0

Type 0

Get the answer 38,522.60 (The answer appears in Excel as a negative number)

=PMT(5.7%,4,134407,0,0) = 38,522.60

Question 2

A commercial bank will loan you \$30,220 for 5 years to buy a car. The loan must be repaid in equal monthly payments at the end of the month. The annual interest rate on the loan is 4.12 percent of the unpaid balance. What is the amount of the monthly payments?

Round the answer to two decimal places.

Your Answer:

Question 2 options:

Answer

[Hide Check my answer](#)

Step 1 – Think in terms of period instead of years.

- ▶ 5 years of monthly payments means $5 \times 12 = 60$ monthly periods
- ▶ Annual interest rate 4.12 percent means $4.12\% / 12 = 0.3433$ percent per month

Step 2 - We are using Excel function PMT (Formulas – Financial - PMT)

Enter:

Rate 4.12%/12

Nper 5*12

PV 30220

FV 0

Type 0

Get the answer 558.19 (The answers appear in Excel as a negative number)

=PMT(4.12%/12,5*12,30220,0,0) = 558.19

Question 3

You need to accumulate \$105,127 for your son's education. You have decided to place equal year-end deposits in a savings account for the next 17 years. The savings account pays 12.50 percent per year, compounded annually. How much will each annual payment be?

Round the answer to two decimal places.

Your Answer:

Question 3 options:

Answer

[Hide Check my answer](#)

We are using Excel function PMT (Formulas – Financial - PMT)

Enter:

Rate 12.5%

Nper 17

PV 0

FV 105127

Type 0

Get the answer 2051.29 (The answer appears in Excel as a negative number)

$$=PMT(12.5\%,17,0,105127,0) = 2051.29$$

Question 4

You plan to buy the house of your dreams in 12 years. You have estimated that the price of the house will be \$74,876 at that time. You are able to make equal deposits every month at the end of the month into a savings account at an annual rate of 9.71 percent, compounded monthly. How much money should you place in this savings account every month in order to accumulate the required amount to buy the house of your dreams?

Round the answer to two decimal places.

Your Answer:

Question 4 options:

Answer

[Hide Check my answer](#)

Step 1 – Think in terms of period instead of years.

12 years of monthly payments means $12 \times 12 = 144$ monthly periods

Annual interest rate 9.71 percent means $9.71\% / 12 = 0.809167$ percent per month

We are using Excel function PMT (Formulas – Financial - PMT)

Enter:

Rate 9.71%/12

Nper 12*12

PV 0

FV 74876

Type 0

Get the answer 276.46 (The answer appears in Excel as a negative number)

$$=PMT(9.71\%/12,12*12,0,74876,0) = 276.46$$

HW3D (FV of mixed stream)

Question 1

You are given an investment to analyze. The cash flows from this investment are

End of year

1. \$1,175
2. \$2,350
3. \$984
4. \$3,365
5. \$1,066

What is the future value of this investment at the end of year five if 17.99 percent per year is the appropriate interest (discount) rate?

Round the answer to two decimal places.

Your Answer:

Question 1 options:

Answer

[Hide Check my answer](#)

Step 1: Calculate Present value of this investment:

We are using Excel function NPV. (Formulas – Financial -NPV)

Enter:

Rate 17.99%

Value 1 1175

Value 2 2350

Value 3 984

Value 4 3365

Value 5 1066

Get the answer 5485.29

$=NPV(17.99\%,1175,2350, 984,3365, 1066) = 5485.29$

Step 2: Calculate Future value of this investment as FV of the result of step 1:

We are using Formulas – Financial –FV

Enter:

Rate 17.99%

Nper 5 (since there are 5 years of cash flows from this investment)

Pmt 0

PV 5485.29 (in Excel it is better to click on cell where the answer to Step 1 is instead of typing the number)

Type 0

Get the answer 12543.69 (The answer appears in Excel as a negative number)

$=FV(17.99\%,5,0,5485.29,0) = 12543.69$

Question 2

You have just purchased an investment that generates the cash flows shown below for the next four years. You are able to reinvest these cash flows at 11.14 percent, compounded annually. How much is this investment worth at the end of year four?

End of year

1. \$469
2. \$1,114
3. \$262
4. \$177

Round the answer to two decimal places.

Your Answer:

Question 2 options:

Answer

[Hide Check my answer](#)

Step 1: Calculate Present value of this investment:

We are using Excel function NPV. (Formulas – Financial -NPV)

Enter:

Rate 11.14%

Value 1 469

Value 2 1114

Value 3 262

Value 4 177

Get the answer 1630.72

Step 2: Calculate Future value of this investment as FV of the result of step 1:

We are using Formulas – Financial –FV

Enter:

Rate 11.14%

Nper 4 (since there are 4 years of cash flows from this investment)

Pmt 0

PV 1630.72 (in Excel it is better to click on cell where the answer to Step 1 is instead of typing the number)

Type 0

Get the answer 2488.06 (The answer appears in Excel as a negative number)

$$=FV(11.14\%,4,0,1630.72,0) = 2488.06$$

Question 3

You have been offered the opportunity to invest in a project that will pay \$1,577 per year at the end of years one through three and \$8,318 per year at the end of years four and five. These cash flows will be placed in a saving account that pays 17.48 percent per year. What is the future value of this cash flow pattern at the end of year five?

Round the answer to two decimal places.

Your Answer:

Question 3 options:

Answer

[Hide Check my answer](#)

Step 1: Calculate Present value of this investment:

We are using Excel function NPV. (Formulas – Financial -NPV)

Enter:

Rate 17.48%

Value 1 1577

Value 2 1577

Value 3 1577

Value 4 8318

Value 5 8318

Get the answer

$$=NPV(17.48\%,1577,1577,1577,8318,8318) = 11541.45$$

Step 2: Calculate Future value of this investment as FV of the result of step 1:

We are using Formulas – Financial –FV

Enter:

Rate 17.48%

Nper 5 (since there are 5 years of cash flows from this investment)

Pmt 0

PV 11541.45 (in Excel it is better to click on cell where the answer to Step 1 is instead of typing the number)

Type 0

Get the answer 25827.36 (The answer appears in Excel as a negative number)

=FV(17.48%,5,0,11541.45,0) = 25827.36

HW3C(How much will each annual payment be (Using FV or PV))

Question 1

Big Brothers, Inc. borrows \$134,407 from the bank at 5.70 percent per year, compounded annually, to purchase new machinery. This loan is to be repaid in equal annual installments at the end of each year over the next 4 years. How much will each annual payment be?

Round the answer to two decimal places.

Your Answer:

Question 1 options:

Answer

[Hide Check my answer](#)

We are using Excel function PMT (Formulas – Financial - PMT)

Enter:

Rate 5.7%

Nper 4

PV 134407

FV 0

Type 0

Get the answer 38,522.60 (The answer appears in Excel as a negative number)

=PMT(5.7%,4,134407,0,0) = 38,522.60

Question 2

A commercial bank will loan you \$30,220 for 5 years to buy a car. The loan must be repaid in equal monthly payments at the end of the month. The annual interest rate on the loan is 4.12 percent of the unpaid balance. What is the amount of the monthly payments?

Round the answer to two decimal places.

Your Answer:

Question 2 options:

Answer

[Hide Check my answer](#)

Step 1 – Think in terms of period instead of years.

5 years of monthly payments means $5 * 12 = 60$ monthly periods

Annual interest rate 4.12 percent means $4.12\% / 12 = 0.3433$ percent per month

Step 2 - We are using Excel function PMT (Formulas – Financial - PMT)

Enter:

Rate 4.12%/12

Nper 5*12

PV 30220

FV 0

Type 0

Get the answer 558.19 (The answers appear in Excel as a negative number)

=PMT(4.12%/12,5*12,30220,0,0) = 558.19

Question 3

You need to accumulate \$105,127 for your son's education. You have decided to place equal year-end deposits in a savings account for the next 17 years. The savings account pays 12.50 percent per year, compounded annually. How much will each annual payment be?

Round the answer to two decimal places.

Your Answer:

Question 3 options:

Answer

[Hide Check my answer](#)

We are using Excel function PMT (Formulas – Financial - PMT)

Enter:

Rate 12.5%

Nper 17

PV 0

FV 105127

Type 0

Get the answer 2051.29 (The answer appears in Excel as a negative number)

=PMT(12.5%,17,0,105127,0) = 2051.29

Question 4

You plan to buy the house of your dreams in 12 years. You have estimated that the price of the house will be \$74,876 at that time. You are able to make equal deposits every month at the end of the month into a savings account at an annual rate of 9.71 percent, compounded monthly. How much money should you place in this savings account every month in order to accumulate the required amount to buy the house of your dreams?

Round the answer to two decimal places.

Your Answer:

Question 4 options:

Answer

[Hide Check my answer](#)

Step 1 – Think in terms of period instead of years.

12 years of monthly payments means $12 \times 12 = 144$ monthly periods

Annual interest rate 9.71 percent means $9.71\% / 12 = 0.809167$ percent per month *

We are using Excel function PMT (Formulas – Financial - PMT)

Enter:

Rate 9.71%/12

Nper 12*12

PV 0

FV 74876

Type 0

Get the answer 276.46 (The answer appears in Excel as a negative number)

$=\text{PMT}(9.71\%/12,12*12,0,74876,0) = 276.46$

HW3D (FV of mixed stream)

Question 1

You are given an investment to analyze. The cash flows from this investment are

End of year

1. \$1,175
2. \$2,350
3. \$984
4. \$3,365
5. \$1,066

What is the future value of this investment at the end of year five if 17.99 percent per year is the appropriate interest (discount) rate?

Round the answer to two decimal places.

Your Answer:

Question 1 options:

Answer

[Hide Check my answer](#)

Step 1: Calculate Present value of this investment:

We are using Excel function NPV. (Formulas – Financial -NPV)

Enter:

Rate 17.99%

Value 1 1175

Value 2 2350

Value 3 984

Value 4 3365

Value 5 1066

Get the answer 5485.29

$$=NPV(17.99\%,1175,2350, 984,3365, 1066) = 5485.29$$

Step 2: Calculate Future value of this investment as FV of the result of step 1:

We are using Formulas – Financial –FV

Enter:

Rate 17.99%

Nper 5 (since there are 5 years of cash flows from this investment)

Pmt 0

PV 5485.29 (in Excel it is better to click on cell where the answer to Step 1 is instead of typing the number)

Type 0

Get the answer 12543.69 (The answer appears in Excel as a negative number)

$$=FV(17.99\%,5,0,5485.29,0) = 12543.69$$

Question 2

You have just purchased an investment that generates the cash flows shown below for the next four years. You are able to reinvest these cash flows at 11.14 percent, compounded annually. How much is this investment worth at the end of year four?

End of year

1. \$469
2. \$1,114
3. \$262
4. \$177

Round the answer to two decimal places.

Your Answer:

Question 2 options:



Answer

[Hide Check my answer](#)

Step 1: Calculate Present value of this investment:

We are using Excel function NPV. (Formulas – Financial -NPV)

Enter:

Rate 11.14%

Value 1 469

Value 2 1114

Value 3 262

Value 4 177

Get the answer 1630.72

Step 2: Calculate Future value of this investment as FV of the result of step 1:

We are using Formulas – Financial –FV

Enter:

Rate 11.14%

Nper 4 (since there are 4 years of cash flows from this investment)

Pmt 0

PV 1630.72 (in Excel it is better to click on cell where the answer to Step 1 is instead of typing the number)

Type 0

Get the answer 2488.06 (The answer appears in Excel as a negative number)

=FV(11.14%,4,0,1630.72,0) = 2488.06

Question 3

You have been offered the opportunity to invest in a project that will pay \$1,577 per year at the end of years one through three and \$8,318 per year at the end of years four and five. These cash flows will be placed in a saving account that pays 17.48 percent per year. What is the future value of this cash flow pattern at the end of year five?

Round the answer to two decimal places.

Your Answer:

Question 3 options:

Answer

[Hide Check my answer](#)

Step 1: Calculate Present value of this investment:

We are using Excel function NPV. (Formulas – Financial -NPV)

Enter:

Rate 17.48%

Value 1 1577

Value 2 1577

Value 3 1577

Value 4 8318

Value 5 8318

Get the answer

=NPV(17.48%,1577,1577,1577,8318,8318) = 11541.45

Step 2: Calculate Future value of this investment as FV of the result of step 1:

We are using Formulas – Financial –FV

Enter:

Rate 17.48%

Nper 5 (since there are 5 years of cash flows from this investment)

Pmt 0

PV 11541.45 (in Excel it is better to click on cell where the answer to Step 1 is instead of typing the number)

Type 0

Get the answer 25827.36 (The answer appears in Excel as a negative number)

=FV(17.48%,5,0,11541.45,0) = 25827.36

HW3E((Perpetuity, EAR, RRR)

Question 1

What is the present value of a \$725 perpetuity discounted back to the present at 13.71 percent.

The answer should be calculated to decimal places.

Your Answer:

Question 1 options:

Answer

[Hide Check my answer](#)

$\$725/0.1371 = 5,288.11$

Question 2

You plan to apply for a loan from Bank of America. The nominal annual interest rate

for this loan is 11.98 percent, compounded daily (with a 365-day year). What is the effective annual rate, or EAR (annual percentage yield), of this loan?

Round the answer to two decimal places in percentage form. (Write the percentage sign in the "units" box)

Your Answer:

Question 2 options:

Answer

units

[Hide Check my answer](#)

$$\text{EAR} = [1 + (0.1198/365)]^{365} - 1 = 12.72\%$$

Question 3

You are considering an investment that has a nominal annual interest rate of 10.68 percent, compounded semiannually. Therefore, the effective annual rate, or EAR (annual percentage yield) is _____.

Round the answer to two decimal places in percentage form. (Write the percentage sign in the "units" box)

Your Answer:

Question 3 options:

Answer

units

[Hide Check my answer](#)

$$\text{EAR} = [1 + (0.1068/2)]^2 - 1 = 10.97\%$$

Question 4

Assume that the inflation rate during the last year was 1.38 percent. US government T-bills had the nominal rates of return of 3.51 percent. What is the real rate of return for a T-bill?

Round the answer to two decimal places in percentage form. (Write the percentage sign in the "units" box)

Your Answer:

Question 4 options:

Answer

units

[Hide Check my answer](#)

Using Fisher formula the Real Rate of Return = $[(1+0.0351)/(1+0.0138)] - 1 = 2.10\%$

Question 5

Large-cap stocks had the nominal rates of return of 7.08 percent. The rate of inflation during the last year was 1.0 percent. What is the real rate of return for large-cap stocks?

Round the answer to two decimal places in percentage form. (Write the percentage sign in the "units" box)

Your Answer:

Question 5 options:

Answer

units

Hide Check my answer

Using Fisher formula the Real Rate of Return = $[(1+0.0708)/(1+0.01)] - 1 = 6.02\%$