# Module 2 Practice Quiz 3

**6/6** points earned (100%)

Excellent!

Retake

[Course Home](https://www.coursera.org/learn/corporate-finance/home/welcome)

Correct

1 / 1 points

1. Consider a company with sales that are initially equal to 450 million a year and grow at a rate of 8% per quarter. The company's profit margin is 7%. Inventory must be in place a quarter before the goods are sold. All goods are paid in cash.

The company's cash flow in the first quarter is \_\_\_\_\_\_\_\_.

1. **-0.5**

**Correct Response**

Cash flow is negative because of the large inventory requirement. In the first quarter, for example, the company generates 112.5 and has a profit of 7.9 (7% of 112.5). However, it must purchase the inventory to be sold next quarter, which is 113 (the COGS next quarter). Thus, cash flow = 112.5 - 113.

1. 7.9
2. -0.6
3. 8.2

Correct

1 / 1 points

2. Consider a company with sales that are initially equal to 450 million a year, and grow at a rate of 8% per quarter. The company's profit margin is 7%. Inventory must be in place a quarter before the goods are sold. All goods are paid in cash.

The company's cash flow in the year is \_\_\_\_\_\_\_\_\_\_.

1. 35.5
2. **-2.2**

**Correct Response**

You need to repeat the calculation above for every quarter. The easiest way to do this is to build a spreadsheet as we did in Module 2. Your financial model should look as follows:

**Year 1:**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Q1 begin | Q1 end | Q2 begin | Q2 end | Q3 begin | Q3 end | Q4 begin | Q4 end |
|  |  |  |  |  |  |  |  |  |
| Sales |  | 112.5 |  | 121.5 |  | 131.2 |  | 141.7 |
|  |  |  |  |  |  |  |  |  |
| COGS |  | 104.6 |  | 113.0 |  | 122.0 |  | 131.8 |
|  |  |  |  |  |  |  |  |  |
| Inventory | 104.6 | 113.0 | 113.0 | 122.0 | 122.0 | 131.8 | 131.8 | 142.3 |
|  |  |  |  |  |  |  |  |  |
| Cash flow in the quarter |  | -0.5 |  | -0.5 |  | -0.6 |  | -0.6 |
|  |  |  |  |  |  |  |  |  |
| Cash flow in the year |  | -2.2 |  |  |  |  |  |  |

1. -2
2. 32

Correct

1 / 1 points

3. Consider a company with sales that are initially equal to 450 million a year and grow at a rate of 8% per quarter. The company's profit margin is 7%. Inventory must be in place a quarter before the goods are sold. All goods are paid in cash.

Suppose now that the growth rate in sales slows down to 5% a quarter. The cash flow in the year is now \_\_\_\_\_\_\_.

1. 12.7
2. **11.4**

**Correct Response**

The slower growth rate benefits the company because it needs to invest less in inventory. The financial model will now look as follows:

**Year 1:**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Q1 begin | Q1 end | Q2 begin | Q2 end | Q3 begin | Q3 end | Q4 begin | Q4 end |
|  |  |  |  |  |  |  |  |  |
| Sales |  | 112.5 |  | 118.1 |  | 124.0 |  | 130.2 |
|  |  |  |  |  |  |  |  |  |
| COGS |  | 104.6 |  | 109.9 |  | 115.3 |  | 121.1 |
|  |  |  |  |  |  |  |  |  |
| Inventory | 104.6 | 109.9 | 109.9 | 115.3 | 115.3 | 121.1 | 121.1 | 127.2 |
|  |  |  |  |  |  |  |  |  |
| Cash flow in the quarter |  | 2.6 |  | 2.8 |  | 2.9 |  | 3.1 |
|  |  |  |  |  |  |  |  |  |
| Cash flow in the year |  | 11.4 |  |  |  |  |  |  |

1. -3.5
2. -1.3

Correct

1 / 1 points

4. Consider the following example of the effect of seasonality in sales on cash flows. It is a modified version of the example we saw in Module 2.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **First Quarter** | **Second Quarter** | **Third Quarter** | **Fourth Quarter** |
| Receivables at start of period | 35 |  |  |  |
| Forecast sales | 80 | 85 | 120 | 140 |
| **Collections:** |  |  |  |  |
| -Sales in current period (70%) | 56 |  |  |  |
| -Sales from last period (30%) | 35 |  |  |  |
| --Total collections | 91 |  |  |  |
| Receivables at end of period | 24 |  |  |  |
|  |  |  |  |  |
| Percentage sales collected this period | 70% |  |  |  |
|  | **First Quarter** | **Second Quarter** | **Third Quarter** | **Fourth Quarter** |
| **Sources of cash:** |  |  |  |  |
| -Collections on accounts receivable | 91 |  |  |  |
| \_\_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | \_\_\_\_ |
| --Total sources | 91 |  |  |  |
|  |  |  |  |  |
| **Uses of cash:** |  |  |  |  |
| -Payments on accounts payable | 60 | 55 | 65 | 75 |
| -Labor and other expenses | 25 | 25 | 25 | 25 |
| -Capital expenditures | 40 | 0 | 0 | 0 |
| -Taxes, interest, and dividends | 5 | 5 | 5 | 5 |
| --Total uses | 130 | 85 | 95 | 105 |
|  |  |  |  |  |
| **Sources minus uses** |  |  |  |  |
|  |  |  |  |  |
| **Calculation of short-term borrowing requirement:** |  |  |  |  |
| -Cash at start of period | 0 |  |  |  |
| -Cash at end of period |  |  |  |  |
| -Cumulative financing required |  |  |  |  |

The total collections in the second quarter are \_\_\_\_\_\_\_\_.

1. **84**

**Correct Response**

In the second quarter you collect the receivables generated in the first quarter (24 = 30%\*80), and the second quarter sales that you collect this period (70%\* 85 = 60). Thus, total collections are 84.

1. 60
2. 89
3. 24

Correct

1 / 1 points

5. Consider the following example of the effect of seasonality in sales on cash flows. It is a modified version of the example we saw in Module 2.

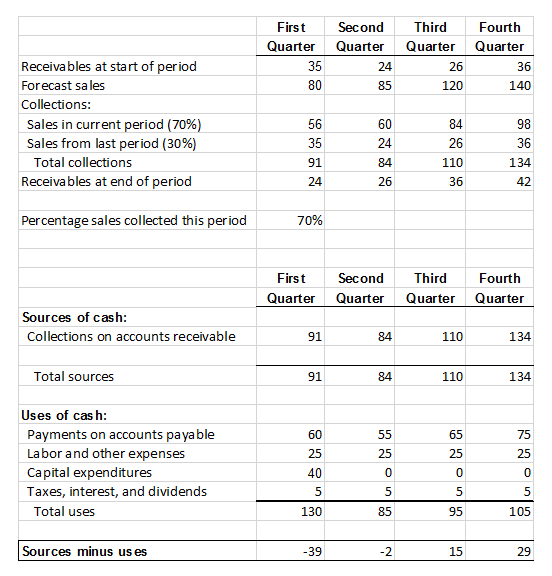
|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **First Quarter** | **Second Quarter** | **Third Quarter** | **Fourth Quarter** |
| Receivables at start of period | 35 |  |  |  |
| Forecast sales | 80 | 85 | 120 | 140 |
| **Collections:** |  |  |  |  |
| -Sales in current period (70%) | 56 |  |  |  |
| -Sales from last period (30%) | 35 |  |  |  |
| --Total collections | 91 |  |  |  |
| Receivables at end of period | 24 |  |  |  |
|  |  |  |  |  |
| Percentage sales collected this period | 70% |  |  |  |
|  | **First Quarter** | **Second Quarter** | **Third Quarter** | **Fourth Quarter** |
| **Sources of cash:** |  |  |  |  |
| -Collections on accounts receivable | 91 |  |  |  |
| \_\_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | \_\_\_\_ |
| --Total sources | 91 |  |  |  |
|  |  |  |  |  |
| **Uses of cash:** |  |  |  |  |
| -Payments on accounts payable | 60 | 55 | 65 | 75 |
| -Labor and other expenses | 25 | 25 | 25 | 25 |
| -Capital expenditures | 40 | 0 | 0 | 0 |
| -Taxes, interest, and dividends | 5 | 5 | 5 | 5 |
| --Total uses | 130 | 85 | 95 | 105 |
|  |  |  |  |  |
| **Sources minus uses** |  |  |  |  |
|  |  |  |  |  |
| **Calculation of short-term borrowing requirement:** |  |  |  |  |
| -Cash at start of period | 0 |  |  |  |
| -Cash at end of period |  |  |  |  |
| -Cumulative financing required |  |  |  |  |

Sources minus uses in the second quarter are equal to \_\_\_\_\_\_\_\_.

1. -25
2. **-2**

**Correct Response**

You need to repeat the same calculation above for the second quarter. The entire planning model should look as follows:



1. 0
2. -39

Correct

1 / 1 points

6. Consider the following example of the effect of seasonality in sales on cash flows. It is a modified version of the example we saw in Module 2.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **First Quarter** | **Second Quarter** | **Third Quarter** | **Fourth Quarter** |
| Receivables at start of period | 35 |  |  |  |
| Forecast sales | 80 | 85 | 120 | 140 |
| **Collections:** |  |  |  |  |
| -Sales in current period (70%) | 56 |  |  |  |
| -Sales from last period (30%) | 35 |  |  |  |
| --Total collections | 91 |  |  |  |
| Receivables at end of period | 24 |  |  |  |
|  |  |  |  |  |
| Percentage sales collected this period | 70% |  |  |  |
|  | **First Quarter** | **Second Quarter** | **Third Quarter** | **Fourth Quarter** |
| **Sources of cash:** |  |  |  |  |
| -Collections on accounts receivable | 91 |  |  |  |
| \_\_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_ | \_\_\_\_ | \_\_\_\_ | \_\_\_\_ |
| --Total sources | 91 |  |  |  |
|  |  |  |  |  |
| **Uses of cash:** |  |  |  |  |
| -Payments on accounts payable | 60 | 55 | 65 | 75 |
| -Labor and other expenses | 25 | 25 | 25 | 25 |
| -Capital expenditures | 40 | 0 | 0 | 0 |
| -Taxes, interest, and dividends | 5 | 5 | 5 | 5 |
| --Total uses | 130 | 85 | 95 | 105 |
|  |  |  |  |  |
| **Sources minus uses** |  |  |  |  |
|  |  |  |  |  |
| **Calculation of short-term borrowing requirement:** |  |  |  |  |
| -Cash at start of period | 0 |  |  |  |
| -Cash at end of period |  |  |  |  |
| -Cumulative financing required |  |  |  |  |

True or false?

This company will need short term financing at least equal to 41 in the first two quarters of the year.

1. **True**

**Correct Response**

The firm starts the year with zero cash, so it needs to borrow -39 in the first quarter and an additional -2 in the second quarter. The borrowing requirement should look as follows:

**Calculation of short-term borrowing requirement:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Cash at start of period | 0 |  |  |  |
| Cash at end of period | -39 | -41 | -26 | 3 |
| Cumulative financing required | 39 | 41 | 26 | 0 |

1. False