

# Growth and Fixed Costs: Solution

*The financial statements of two Wonderland banks and all their customers were set aside for tax irregularities... something here doesn't add up.*

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Things to notice about the financial statements:

- There is enough information to match the company profiles to the financial statements, and so put the financial statements in order.
- When the statements are put in order, the tax amounts (in the statement of operations) can be converted to numbers to read “Tax line red herring.”
- some lines in the Statement of Assets & Liabilities don't add up right: they're off by a number between 1 and 26.

Given the above, the steps to solving this puzzle are:

## 1. Match statements to company descriptions

This gives an ordering of the financial statements.

The keys to matching are:

- Size of a company: there are a few initial revenue numbers: 100,000; 50,000; 30,000; 10,000.
- Speed a company gets paid or pays its bills: “Receivables days” and “payables days” are well-defined concepts.
- Amount of inventory a company holds:  
Restaurants, for instance, hold inventory only for a few days because most of it is perishable.  
Note that the puzzle should be solvable without knowing those things in advance, since “payables days”, “receivables days”, and “inventory days” are referred to in a company description, and these are google-able.
- interest paid on loans: higher by customers of First Wonderland, lower by customers of the Standard Bank.
- “Intangible assets” or brand worth, held by companies with consumer brands
- “Goodwill” some companies have accumulated by acquiring companies for more than the acquisitions' book values
- And a few special items, such as:
  - legal fees awarded from one company to another
  - dividends paid by companies owned by the Red Queen or White King

## 2. Find errors in the financial statements; convert to letters

These are lines that don't “add up”. Each statement has a line off by a value  $< 26$ ; these can be converted to letters (1 = A, 2 = B, etc) to spell the clue phrase FBNEWSTOCKOFFERING or facebook new stock offering. Facebook had a secondary offering that in December of 2016 that was frequently in the news in the last few months of 2013, and the answer is “secondary”.

# Growth and Fixed Costs: Solution

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## 1. Standard Bank of Wonderland

A commercial bank offering loans with competitive interest rates to Wonderland businesses; it has also issued a consumer credit card. Walrus is a major shareholder.

lower interest payments  
fee revenues

## 2. First Wonderland Bank

A bank focused on small Wonderland merchants and loans for Wonderland individuals. First Wonderland has many branches in convenient areas of Wonderland and excellent customer service.

higher occupancy costs  
higher salary payments

## 3. Rust Works Steel & Metal Products

Rust Works Steel & Metal Products is an industrial conglomerate that mines raw materials and makes steel and other industrial goods in a highly-automated operation. It sells to Travels with Turtles as well as to Solid Manufacturing, Inc. The mines it owns are expected to be in operation for close to a century; other fixed assets are also long-lived, but are occasionally sold.

low salary costs  
long depreciation years  
(fixed assets / depr.)

Rust Works Steel & Metal Products is slow to pay its bills and slow to collect payment from its customers. Similarly, its customers have high "days payable" and "days receivable" amounts.

high payables & receivables days

## 4. Travels with Turtles

A popular, well-known travel company that owns its own infrastructure and cars, each of which require replacement every couple of decades. Travels with Turtles is financed with a loan from Standard Bank of Wonderland; some years it loses money.

Good brand recognition  
20-yr depreciation  
Deferred tax asset.

## 5. Wonderland Dyes and Potions

This innovative company is the premier producer of dyes and flavors in Wonderland: Its ingredients are key for manufacture of blacking and whitening as well as toothpaste and any size-changing food or drink. Wonderland D&P owns top-of-the-line chemical manufacturing equipment. It is known to demand quick payment from its customers, and this reputation helps its customers keep their accounts receivable balances low as well.

high fixed assets  
low accounts receivable

## 6. Solid Manufacturing, Inc.

This contract manufacturer for Dovetail Design also makes tooling for White Rabbit Timepieces and other customers. It is heavily invested in precision manufacturing equipment and its margins are razor-thin.

high depreciation, high fixed assets.

## 7. Dovetail Design & Manufacturing

Leading provider of computational plug-ins for mechanical "computers" which are increasingly popular in Wonderland. Dovetail offers modules that perform simple differentiation and integration that can be connected into simple parlour games; it continuously develops new products.

R&D expenditure

Dovetail contracts with Solid Manufacturing, Inc. for the high-precision manufacturing of its widgets. Its name is known throughout Wonderland, and its products are sold in a variety of Wonderland shops and resellers. Carpenter owns a majority stake and refuses to bank with Standard Wonderland.

intangible brand asset  
First Wonderland:  
(higher interest rate)

### 8. Emblaze

The Cheshire Cat's line of toothpaste. The majority of ingredients are purchased from Wonderland Dyes and Potions; its materials are cheap but its advertising is expensive, as is its manufacturing equipment which must be replaced about every ten years. Like most customers of Wonderland Dyes and Potions, Emblaze is paid promptly and pays its bills promptly as well.

good gross margin  
high advertising cost  
high fixed assets;  
10-yr depreciation  
low receivables days;  
low payables days

### 9. The White and The Black

One of many manufacturers of blacking and whiting, this small company is dependent on the only supplier for its key ingredients, Wonderland Dyes and Potions. Owned by Gryphon, who prides himself on managing cash flow and keeping inventory days low.

weak competitive position: low margin  
low payables, rec'bles & inventory

### 10. White Rabbit Timepieces

This independent watch manufacturer has a strong brand and strives to reach exclusive Wonderland customers. Many Wonderland shops carry one or two types of Rabbit watches; in contrast, the company store carries each of hundreds of models and sizes. Distribution shops pay Rabbit only after a watch has sold.

Intangible assets  
high receivables

The manufacturing is done by hand using specialized equipment that typically lasts about 15 years.

High inventory

### 11. Caterpillar Smoke and Gears

Large chain of customer shops owned by Caterpillar; these stores are the only source in Wonderland for some consumer goods such as Gryphon's Blacking and Whiting. In the last few years Caterpillar has acquired two smaller chains of customer shops to move into higher foot-traffic locations; before the acquisitions Caterpillar Smoke and Gears had several money-losing years.

good gross margins.  
goodwill asset.  
deferred tax asset.

Caterpillar Smoke and Gears lost a trademark battle last year to White's Chess Supply and Sundries, and is financed via loans from Standard Bank of Wonderland.

Legal fee;  
debt-financed.

### 12. White's Chess Supply and Sundries

Chain of consumer shops, owned by the court of the White King, that deals in many kinds of consumer goods and funds upkeep of the King's court. Staff's activities include development of new chess pieces and use of new materials in boards and pieces.

pays dividends  
R&D

### 13. Scrumptious Essences

This chain of shops has an exclusive license to sell size-changing Drinkme<sup>TM</sup> and Eatme<sup>TM</sup> products, which it makes using materials purchased from Wonderland Dye. Scrumptious Essences also does some experimenting on potions' effect on mirrors.

high gross margins  
low payables days  
R&D costs

### 14. Tweedle Brothers Essential Supplies

This small customer shop, like many in Wonderland, sells looking glasses, toothpaste, and magic potions. The brothers own their building and staff the counter themselves whenever possible. The shop only keeps the most commonly needed items and is often out-of-stock. Tweedle Brothers is slow to pay its bills.

low margins  
some depreciation  
low salary costs  
low inventory  
high accounts payables.

### 15. Hatter's Tea-stop

Tea shop owned by the Mad Hatter, who spends some of his time developing new tea combinations. Offers customers who are having an unbirthday the unusual option to pay after 30 days, but then often has trouble collecting payment.

R&D costs.  
high receivables days

### 16. Little Mouse Tea

Tea shop formerly part of Hatter's Tea-stop that split off a few years ago and subsequently lost a suit filed by the same. Benefited from low prices for raw tea across Wonderland this year. The corporate split was funded by a loan which will come due in a few years.

one-time legal payment  
low gross margin  
debt-financed

### 17. Humpty Dumpty Sundries

Another sundries shop, one of the best-respected names among sundry shops in Wonderland. Offers guaranteed availability of the widest range of goods anywhere in Wonderland; suppliers grumble about Humpty Dumpty's fairly long days payable.

intangible asset  
high inventory  
high payables

### 18. The Purple Walrus

This oyster bar owned by Walrus is not very popular and not very unpopular. Staff are known to be grumpy, but the oysters are always fresh. The bar has borrowed heavily from Standard Bank of Wonderland, the smallest business to do so, and has good relationships with vendors of lemon juice and wine as well as with the landlord.

smaller intangible asset  
staff are underpaid.  
payables not too high  
No oyster vendors...

For years, the tax agency has puzzled over the Purple Walrus's low profitability and wondered where the revenues are going.

"banking fees" are  
hiding revenue

## 12. White's Chess Supply and Sundries

Chain of consumer shops, owned by the court of the White King, that deals in many kinds of consumer goods and funds upkeep of the King's court. Staff's activities include development of new chess pieces and use of new materials in boards and pieces.

pays dividends  
R&D

### Statement of Operations

#### Revenue

Total revenue	10,000
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#### Costs and expenses

Cost of goods sold	7,800	gross margin: 22%
Occupancy costs	200	
Advertising and marketing costs	50	
Research & development	800	Chess set development
Salary and benefits	1,000	10% of revenue

Total operating expenses	9,850
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Income (loss) from operations	150
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Interest expense	(198)	interest rate: 11%
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One-time settlement in legal dispute	500
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Income before taxes	452
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Income taxes paid	5	Tax line red herring: 5 → E
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Net income	447
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### Consolidated Statement of Cash Flows

Cash and cash equivalents: beginning of period	9,665
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Net Income	447
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Net cash flows from operating activities	447
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Dividend payment	(111)	Court upkeep
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Net cash flows from financing activities	(111)
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Cash and cash equivalents: end of period	10,000
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### Statement of Assets & Liabilities

#### Assets

Cash and cash equivalents	10,000
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Inventory	641
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Total current assets	10,641
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Goodwill & Intangible assets	13,000	Overpayment for acquisitions
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Total assets	23,647	Correct sum is 23641: off by 6 → F
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#### Liabilities

Accounts payable	800
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Current portion of debt	90
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Total current liabilities	890
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Long-term debt	1,800
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Total liabilities	2,690
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Stockholders' equity	20,957
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Payables days	29.6	(Accounts payable) / (operating expenses / 365)
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Inventory days	29.9	(Inventory) / (COGS per day)
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### 3. Rust Works Steel & Metal Products

Rust Works Steel & Metal Products is an industrial conglomerate that mines raw materials and makes steel and other industrial goods in a highly-automated operation. It sells to Travels with Turtles as well as to Solid Manufacturing, Inc. The mines it owns are expected to be in operation for close to a century; other fixed assets are also long-lived, but are occasionally sold.

low salary costs  
long depreciation years  
(fixed assets / depr.)

Rust Works Steel & Metal Products is slow to pay its bills and slow to collect payment from its customers. Similarly, its customers have high “days payable” and “days receivable” amounts.

high payables & receivables days

#### Statement of Operations

##### Revenue

Total revenue	50,000	
<b>Costs and expenses</b>		
Cost of goods sold	29,000	gross margin: 42%: high
Depreciation & amortization	2,500	Depreciation is 1/100 fixed assets
Salary and benefits	1,500	3% of revenue: mostly automated
Total operating expenses	33,000	
Income (loss) from operations	17,000	
Interest expense	(13,716)	interest rate: 6%
Income before taxes	3,284	
Income taxes paid	1,024	Tax line red herring: 24→ X
Net income	2,260	

#### Consolidated Statement of Cash Flows

Cash and cash equivalents: beginning of period	15,240	
Net Income	2,260	
Depreciation & amortization	2,500	
Net cash flows from operating activities	4,760	
New debt incurred (repaid)	(10,000)	
Net cash flows from financing activities	(10,000)	
Cash and cash equivalents: end of period	10,000	

#### Statement of Assets & Liabilities

##### Assets

Cash and cash equivalents	10,000	
Accounts receivable	10,400	
Material inventory	795	Manufacturing inventory
Finished goods inventory	1,589	
Total current assets	22,798	Correct sum is 22784: off by 14→ N
Property & fixed assets	250,000	
Goodwill & Intangible assets	13,000	Overpayment for acquisitions
Total assets	285,798	

##### Liabilities

Accounts payable	6,700	
Current portion of debt	11,430	
Total current liabilities	18,130	
Long-term debt	228,600	
Total liabilities	246,730	
<b>Stockholders' equity</b>	39,068	

Depreciation years	100	(fixed assets) / depreciation
Receivables days (days sales outstanding)	75.9	(Accounts receivable) / (Revenue/365)
Payables days	74.1	(Accounts payable) / (operating expenses / 365)
Inventory days	30.0	(Inventory) / (COGS per day)

## 6. Solid Manufacturing, Inc.

This contract manufacturer for Dovetail Design also makes tooling for White Rabbit Time-pieces and other customers. It is heavily invested in precision manufacturing equipment and its margins are razor-thin.

high depreciation, high fixed assets.

### Statement of Operations

#### Revenue

Total revenue	30,000
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#### Costs and expenses

Cost of goods sold	24,000	gross margin: 20%
Depreciation & amortization	3,750	
Salary and benefits	900	3% of revenue

Total operating expenses	28,650
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Income (loss) from operations	1,350
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Interest expense	(492)	interest rate: 6%
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Income before taxes	858
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Income taxes paid	14	Tax line red herring: 14 → N
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Net income	844
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### Consolidated Statement of Cash Flows

Cash and cash equivalents: beginning of period	5,406
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Net Income	844
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Depreciation & amortization	3,750
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Net cash flows from operating activities	4,594
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Cash and cash equivalents: end of period	10,000
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### Statement of Assets & Liabilities

#### Assets

Cash and cash equivalents	10,000
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Accounts receivable	6,200
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Material inventory	658
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Finished goods inventory	1,315	Manufacturing inventory
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Total current assets	18,173
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Property & fixed assets	75,000
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Deferred tax asset	10,000	Tax credit from money-losing years
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Total assets	103,173
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#### Liabilities

Accounts payable	5,800
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Current portion of debt	410
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Total current liabilities	6,210
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Long-term debt	8,200
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Total liabilities	14,410
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Stockholders' equity	88,782	Correct value is 88763: off by 19 → S
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Depreciation years	20	(fixed assets) / depreciation
Receivables days (days sales outstanding)	75.4	(Accounts receivable) / (Revenue/365)
Payables days	73.8	(Accounts payable) / (operating expenses / 365)
Inventory days	30.0	(Inventory) / (COGS per day)

## 16. Little Mouse Tea

Tea shop formerly part of Hatter's Tea-stop that split off a few years ago and subsequently lost a suit filed by the same. Benefited from low prices for raw tea across Wonderland this year. The corporate split was funded by a loan which will come due in a few years.

one-time legal payment  
low gross margin  
debt-financed

### Statement of Operations

#### Revenue

Total revenue	10,000	
<b>Costs and expenses</b>		
Cost of goods sold	7,000	gross margin: 30%: low-priced raw tea
Occupancy costs	200	
Salary and benefits	1,000	10% of revenue
Total operating expenses	8,200	
Income (loss) from operations	1,800	
Interest expense	(924)	interest rate: 11%
One-time settlement in legal dispute	(500)	
Income before taxes	376	
Income taxes paid	14	Tax line red herring: 14 → N
Net income	362	

### Consolidated Statement of Cash Flows

Cash and cash equivalents: beginning of period	(5,362)
Net Income	362
Net cash flows from operating activities	362
New debt incurred (repaid)	15,000
Net cash flows from financing activities	15,000
Cash and cash equivalents: end of period	10,000

### Statement of Assets & Liabilities

#### Assets

Cash and cash equivalents	10,000
Inventory	575
Total current assets	10,575
Total assets	10,575

#### Liabilities

Accounts payable	600
Total current liabilities	600
Long-term debt	8,400
Total liabilities	9,000
<b>Stockholders' equity</b>	1,584

Correct value is 1575: off by 9 → I

Payables days	26.7	(Accounts payable) / (operating expenses / 365)
Inventory days	29.9	(Inventory) / (COGS per day)



## 8. Emblaze

The Cheshire Cat's line of toothpaste. The majority of ingredients are purchased from Wonderland Dyes and Potions ; its materials are cheap but its advertising is expensive, as is its manufacturing equipment which must be replaced about every ten years. Like most customers of Wonderland Dyes and Potions, Emblaze is paid promptly and pays its bills promptly as well.

good gross margin  
high advertising cost  
high fixed assets;  
10-yr depreciation  
low receivables days;  
low payables days

## Statement of Operations

### Revenue

Total revenue	40,000
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### Costs and expenses

Cost of goods sold	26,000	gross margin: 35%
Depreciation & amortization	4,000	
Advertising and marketing costs	2,000	
Salary and benefits	4,000	10% of revenue

Total operating expenses	36,000
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Income (loss) from operations	4,000
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Interest expense	(252)	interest rate: 6%
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Income before taxes	3,748
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Income taxes paid	1,018	Tax line red herring: 18→ R
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Net income	2,730
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## Consolidated Statement of Cash Flows

Cash and cash equivalents: beginning of period	3,270
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Net Income	2,730
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Depreciation & amortization	4,000
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Net cash flows from operating activities	6,730
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Cash and cash equivalents: end of period	10,000
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## Statement of Assets & Liabilities

### Assets

Cash and cash equivalents	10,000
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Accounts receivable	1,100
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Material inventory	712
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Finished goods inventory	1,425
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Total current assets	13,237
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Property & fixed assets	40,000
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Total assets	53,237
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### Liabilities

Accounts payable	900
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Current portion of debt	210
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Total current liabilities	1,110
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Long-term debt	4,200
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Total liabilities	5,310
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Stockholders' equity	47,942
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Correct value is 47927: off by 15→ **O**

Depreciation years	10
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Receivables days (days sales outstanding)	10.0
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Payables days	9.12
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Inventory days	30.0
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(fixed assets) / depreciation

(Accounts receivable) / (Revenue/365)

(Accounts payable) / (operating expenses / 365)

(Inventory) / (COGS per day)

## 11. Caterpillar Smoke and Gears

Large chain of customer shops owned by Caterpillar; these stores are the **only source** in Wonderland for some consumer goods such as Gryphon's Blacking and Whiting. In the last few years Caterpillar **has acquired two smaller chains** of customer shops to move into higher foot-traffic locations; before the acquisitions Caterpillar Smoke and Gears had several **money-losing years**.

good gross margins.

goodwill asset.

deferred tax asset.

Caterpillar Smoke and Gears **lost a trademark battle** last year to White's Chess Supply and Sundries, and is **financed via loans** from Standard Bank of Wonderland.

Legal fee;

debt-financed.

### Statement of Operations

#### Revenue

Total revenue	30,000	
<b>Costs and expenses</b>		
Cost of goods sold	19,500	gross margin: 35%
Occupancy costs	600	
Salary and benefits	3,000	10% of revenue
Total operating expenses	23,100	
Income (loss) from operations	6,900	
Interest expense	(1,656)	interest rate: 6%
One-time settlement in legal dispute	(500)	
Income before taxes	4,744	
Income taxes paid	1,008	Tax line red herring: 8→ H
Net income	3,736	

### Consolidated Statement of Cash Flows

Cash and cash equivalents: beginning of period	(8,736)
Net Income	3,736
Net cash flows from operating activities	3,736
New debt incurred (repayed)	15,000
Net cash flows from financing activities	15,000
Cash and cash equivalents: end of period	10,000

### Statement of Assets & Liabilities

#### Assets

Cash and cash equivalents	10,000	
Inventory	1,603	
Total current assets	11,603	
Goodwill & Intangible assets	13,000	Overpayment for acquisitions
Deferred tax asset	10,000	Tax credit from money-losing years
Total assets	34,618	Correct sum is 34603: off by 15→ <b>O</b>

#### Liabilities

Accounts payable	1,800	
Current portion of debt	1,380	
Total current liabilities	3,180	
Long-term debt	27,600	
Total liabilities	30,780	
<b>Stockholders' equity</b>	3,838	

Payables days	28.4	(Accounts payable) / (operating expenses / 365)
Inventory days	30.0	(Inventory) / (COGS per day)

### 18. The Purple Walrus

This oyster bar owned by Walrus is not very popular and not very unpopular. Staff are known to be grumpy, but the oysters are always fresh. The bar has borrowed heavily from Standard Bank of Wonderland, the smallest business to do so, and has good relationships with vendors of lemon juice and wine as well as with the landlord.

smaller intangible asset  
staff are underpaid.  
payables not too high  
No oyster vendors...

For years, the tax agency has puzzled over the Purple Walrus's low profitability and wondered where the revenues are going.

"banking fees" are  
hiding revenue

### Statement of Operations

#### Revenue

Total revenue	20,000	small
<b>Costs and expenses</b>		
Cost of goods sold	1,625	Walrus tricks oysters into coming in for free.
Depreciation & amortization	500	
Occupancy costs	1,000	
Salary and benefits	2,300	12% of revenue
Banking fees	13,889	Untaxed revenue passed through Walrus's bank
Total operating expenses	19,314	
Income (loss) from operations	686	
Interest expense	(96)	interest rate: 6%
Income before taxes	590	
Income taxes paid	100	Tax line red herring: 0 → 0
0	109	
Net income	490	

### Consolidated Statement of Cash Flows

Cash and cash equivalents: beginning of period	9,010
Net Income	490
Depreciation & amortization	500
Net cash flows from operating activities	990
Cash and cash equivalents: end of period	10,000

### Statement of Assets & Liabilities

#### Assets

Cash and cash equivalents	10,000	
Inventory	36	
Total current assets	10,036	
Property & fixed assets	10,000	
Goodwill & Intangible assets	500	Overpayment for acquisitions
Total assets	20,543	Correct sum is 20536: off by 7 → G

#### Liabilities

Accounts payable	1,500	
Current portion of debt	80	
Total current liabilities	1,580	
Long-term debt	1,600	
Total liabilities	3,180	
<b>Stockholders' equity</b>	17,363	

Depreciation years	20	(fixed assets) / depreciation
Payables days	28.3	(Accounts payable) / (operating expenses / 365)
Inventory days	8.08	(Inventory) / (COGS per day)

## 9. The White and The Black

One of many manufacturers of blacking and whiting, this small company is dependent on the only supplier for its key ingredients, Wonderland Dyes and Potions. Owned by Gryphon, who prides himself on managing cash flow and keeping inventory days low.

weak competitive position: low margin  
low payables, rec'bles & inventory

### Statement of Operations

#### Revenue

Total revenue	10,000	
<b>Costs and expenses</b>		
Cost of goods sold	8,200	gross margin: 18%
Depreciation & amortization	500	
Salary and benefits	1,000	10% of revenue
Total operating expenses	9,700	
Income (loss) from operations	300	
Interest expense	(176)	interest rate: 11%
Income before taxes	124	
Income taxes paid	5	Tax line red herring: 5 → E
Net income	119	

### Consolidated Statement of Cash Flows

Cash and cash equivalents: beginning of period	9,681
Net Income	119
Depreciation & amortization	200
Net cash flows from operating activities	319
Cash and cash equivalents: end of period	10,000

### Statement of Assets & Liabilities

#### Assets

Cash and cash equivalents	10,000	
Accounts receivable	200	
Material inventory	75	Manufacturing inventory
Finished goods inventory	150	
Total current assets	10,425	
Property & fixed assets	10,000	
Total assets	20,428	Correct sum is 20425: off by 3 → C

#### Liabilities

Accounts payable	200	
Current portion of debt	80	
Total current liabilities	280	
Long-term debt	1,600	
Total liabilities	1,880	
<b>Stockholders' equity</b>	18,548	

Depreciation years	20	(fixed assets) / depreciation
Receivables days (days sales outstanding)	7.3	(Accounts receivable) / (Revenue/365)
Payables days	7.52	(Accounts payable) / (operating expenses / 365)
Inventory days	10.0	(Inventory) / (COGS per day)

## 2. First Wonderland Bank

A bank focused on small Wonderland merchants and loans for Wonderland individuals. First Wonderland has many branches in convenient areas of Wonderland and excellent customer service.

higher occupancy costs  
higher salary payments

### Statement of Operations

#### Revenue

Revenue from interest	5,588	Higher interest rate: 11%
Other revenue	40,000	
Total revenue	45,588	
<b>Costs and expenses</b>		
Interest paid	3,500	
Provision for loan loss	1,000	
Occupancy costs	600	
Salary and benefits	7,978	18% of revenue: higher than other bank
Total operating expenses	13,078	
Income (loss) from operations	32,510	
Income before taxes	32,510	
Income taxes paid	10,001	Tax line red herring: 1 → A
Net income	22,509	

### Consolidated Statement of Cash Flows

Cash and cash equivalents: beginning of period	7,491
Net Income	22,509
Net cash flows from operating activities	22,509
Purchases of treasury shares	(10,000)
Proceeds from issuance (repurchase) of long-term debt	(10,000)
Net cash flows from financing activities	(20,000)
Cash and cash equivalents: end of period	10,000

### Statement of Assets & Liabilities

#### Assets

Cash and cash equivalents	10,000	
Property & fixed assets	4,559	
Mortgage loans	12,000	Consumer loans
Loan assets	38,800	
Total assets	65,359	
<b>Liabilities</b>		
Deposits	50,000	
Total liabilities	50,000	
<b>Stockholders' equity</b>	15,361	Correct value is 15359: off by 2 → B

This is one of two bank statements: it has loans as assets, deposits as liabilities, and revenue from interest. This bank's interest is a higher percent of its loan assets.

## 17. Humpty Dumpty Sundries

Another sundries shop, one of the best-respected names among sundry shops in Wonderland. Offers guaranteed availability of the widest range of goods anywhere in Wonderland; suppliers grumble about Humpty Dumpty's fairly long days payable.

intangible asset  
high inventory  
high payables

### Statement of Operations

#### Revenue

Total revenue	30,000	
<b>Costs and expenses</b>		
Cost of goods sold	24,000	gross margin: 20%
Occupancy costs	600	
Advertising and marketing costs	150	
Salary and benefits	3,000	10% of revenue
Total operating expenses	27,750	
Income (loss) from operations	2,250	
Interest expense	(209)	interest rate: 11%
Income before taxes	2,041	
Income taxes paid	707	Tax line red herring: 7 → G
0	1,018	
Net income	1,334	

### Consolidated Statement of Cash Flows

Cash and cash equivalents: beginning of period	8,666
Net Income	1,334
Net cash flows from operating activities	1,334
Cash and cash equivalents: end of period	10,000

### Statement of Assets & Liabilities

#### Assets

Cash and cash equivalents	10,000	
Inventory	1,973	
Total current assets	11,973	
Goodwill & Intangible assets	13,000	Overpayment for acquisitions
Total assets	24,973	

#### Liabilities

Accounts payable	5,700	
Current portion of debt	95	
Total current liabilities	5,795	
Long-term debt	1,900	
Total liabilities	7,695	
<b>Stockholders' equity</b>	17,292	Correct value is 17278: off by 14 → N

Payables days

74.9

(Accounts payable) / (operating expenses / 365)

Inventory days

30.0

(Inventory) / (COGS per day)

## 7. Dovetail Design & Manufacturing

Leading provider of computational plug-ins for mechanical “computers” which are increasingly popular in Wonderland. Dovetail offers modules that perform simple differentiation and integration that can be connected into simple parlour games; it continuously develops new products.

R&D expenditure

Dovetail contracts with Solid Manufacturing, Inc. for the high-precision manufacturing of its widgets. Its name is known throughout Wonderland, and its products are sold in a variety of Wonderland shops and resellers. Carpenter owns a majority stake and refuses to bank with Standard Wonderland.

intangible brand asset  
First Wonderland:  
(higher interest rate)

### Statement of Operations

#### Revenue

Total revenue	40,000	
<b>Costs and expenses</b>		
Cost of goods sold	31,200	gross margin: 22%
Depreciation & amortization	300	
Advertising and marketing costs	200	
Research & development	3,200	
Salary and benefits	4,000	10% of revenue
Total operating expenses	38,900	
Income (loss) from operations	1,100	
Interest expense	(275)	interest rate: 11%
Income before taxes	825	
Income taxes paid	5	Tax line red herring: 5 → E
Net income	820	

### Consolidated Statement of Cash Flows

Cash and cash equivalents: beginning of period	11,880	
Net Income	820	
Depreciation & amortization	300	
Net cash flows from operating activities	1,120	
Net cash flows from investing activities	(3,000)	Investing in its own growth
Cash and cash equivalents: end of period	10,000	

### Statement of Assets & Liabilities

#### Assets

Cash and cash equivalents	10,000	
Accounts receivable	3,300	
Material inventory	855	Manufacturing inventory
Finished goods inventory	1,710	
Total current assets	15,885	Correct sum is 15865: off by 20 → T
Property & fixed assets	3,000	
Goodwill & Intangible assets	13,000	Overpayment for acquisitions
Total assets	31,885	

#### Liabilities

Accounts payable	7,900	
Total current liabilities	7,900	
Long-term debt	2,500	
Total liabilities	10,400	
<b>Stockholders' equity</b>	21,485	

Depreciation years	10	(fixed assets) / depreciation
Receivables days (days sales outstanding)	30.1	(Accounts receivable) / (Revenue/365)
Payables days	74.1	(Accounts payable) / (operating expenses / 365)
Inventory days	30.0	(Inventory) / (COGS per day)

### 1. Standard Bank of Wonderland

A commercial bank offering loans with competitive interest rates to Wonderland businesses; it has also issued a consumer credit card. Walrus is a major shareholder.

lower interest payments  
fee revenues

### Statement of Operations

#### Revenue

Revenue from interest	24,654	Lower interest rate: 6%
Revenue from fees	34,689	Credit card fees
Total revenue	59,343	
<b>Costs and expenses</b>		
Interest paid	16,000	
Provision for loan loss	5,000	
Occupancy costs	100	
Salary and benefits	1,780	3% of revenue
Special payment to small business owner	14,689	Purple Walrus "Fee" returned to Walrus
Total operating expenses	37,569	
Income (loss) from operations	21,774	
Income before taxes	21,774	
Income taxes paid	7,020	Tax line red herring: 20→ T
Net income	14,754	

### Consolidated Statement of Cash Flows

Cash and cash equivalents: beginning of period	5,246
Net Income	14,754
Net cash flows from operating activities	14,754
Proceeds from issuance (repurchase) of long-term debt	(10,000)
Net cash flows from financing activities	(10,000)
Cash and cash equivalents: end of period	10,000

### Statement of Assets & Liabilities

#### Assets

Cash and cash equivalents	10,000
Property & fixed assets	5,934
Loan assets	397,900
Other assets	13,000
Total assets	426,834
<b>Liabilities</b>	
Deposits	400,000
Total liabilities	400,000
<b>Stockholders' equity</b>	26,840

Correct value is 26834: off by 6→ F

This is one of two bank statements: it has loans as assets, deposits as liabilities, and revenue from interest. This bank's interest is a lower percent of its loan assets, and it has fee revenue from its credit cards.



### 13. Scrumptious Essences

This chain of shops has an exclusive license to sell size-changing Drinkme<sup>TM</sup> and Eatme<sup>TM</sup> products, which it makes using materials purchased from Wonderland Dye. Scrumptious Essences also does some experimenting on potions' effect on mirrors.

high gross margins  
low payables days  
R&D costs

#### Statement of Operations

##### Revenue

Total revenue	30,000
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##### Costs and expenses

Cost of goods sold	19,500	gross margin: 35%
Occupancy costs	600	
Research & development	2,400	experimentation
Salary and benefits	3,000	10% of revenue

Total operating expenses	25,500
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Income (loss) from operations	4,500
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Interest expense	(99)	interest rate: 11%
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Income before taxes	4,401
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Income taxes paid	1,018	Tax line red herring: 18→ R
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Net income	3,383
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#### Consolidated Statement of Cash Flows

Cash and cash equivalents: beginning of period	6,617
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Net Income	3,383
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Net cash flows from operating activities	3,383
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Cash and cash equivalents: end of period	10,000
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#### Statement of Assets & Liabilities

##### Assets

Cash and cash equivalents	10,000
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Inventory	1,603
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Total current assets	11,603
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Total assets	11,609	Correct sum is 11603: off by 6→ F
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##### Liabilities

Accounts payable	600
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Current portion of debt	45
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Total current liabilities	645
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Long-term debt	900
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Total liabilities	1,545
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Stockholders' equity	10,064
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Payables days	8.58	(Accounts payable) / (operating expenses / 365)
Inventory days	30.0	(Inventory) / (COGS per day)

## 5. Wonderland Dyes and Potions

This innovative company is the premier producer of dyes and flavors in Wonderland: Its ingredients are key for manufacture of blacking and whitening as well as toothpaste and any size-changing food or drink. Wonderland D&P owns top-of-the-line chemical manufacturing equipment. It is known to demand quick payment from its customers, and this reputation helps its customers keep their accounts receivable balances low as well.

high fixed assets  
low accounts receivable

### Statement of Operations

#### Revenue

Total revenue	50,000
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#### Costs and expenses

Cost of goods sold	32,500	gross margin: 35%: high
Depreciation & amortization	6,250	
Salary and benefits	5,000	10% of revenue

Total operating expenses	43,750
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Income (loss) from operations	6,250
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Interest expense	(666)	interest rate: 6%
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Income before taxes	5,584
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Income taxes paid	1,009	Tax line red herring: 9 → I
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0	106
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Net income	4,575
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### Consolidated Statement of Cash Flows

Cash and cash equivalents: beginning of period	19,175
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Net Income	4,575
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Depreciation & amortization	6,250
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Net cash flows from operating activities	10,825
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New debt incurred (repaid)	(20,000)
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Net cash flows from financing activities	(20,000)
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Cash and cash equivalents: end of period	10,000
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### Statement of Assets & Liabilities

#### Assets

Cash and cash equivalents	10,000
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Accounts receivable	1,300
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Material inventory	890
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Finished goods inventory	1,781
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Total current assets	13,994	Correct sum is 13971: off by 23 → <b>W</b>
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Property & fixed assets	125,000
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Total assets	138,994
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#### Liabilities

Accounts payable	1,100
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Current portion of debt	555
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Total current liabilities	1,655
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Long-term debt	11,100
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Total liabilities	12,755
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<b>Stockholders' equity</b>	126,239
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Depreciation years	20	(fixed assets) / depreciation
Receivables days (days sales outstanding)	9.49	(Accounts receivable) / (Revenue/365)
Payables days	9.17	(Accounts payable) / (operating expenses / 365)
Inventory days	29.9	(Inventory) / (COGS per day)

### 15. Hatter's Tea-stop

Tea shop owned by the Mad Hatter, who spends some of his time developing new tea combinations. Offers customers who are having an unbrithday the unusual option to pay after 30 days, but then often has trouble collecting payment.

R&D costs.  
high receivables days

### Statement of Operations

#### Revenue

Total revenue	30,000
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#### Costs and expenses

Cost of goods sold	20,000	gross margin: 33%: low-priced raw tea
Occupancy costs	600	
Research & development	2,400	Tea combination development
Salary and benefits	3,000	10% of revenue

Total operating expenses	26,000
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Income (loss) from operations	4,000
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Interest expense	(1,562)	interest rate: 11%
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One-time settlement in legal dispute	500
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Income before taxes	2,938
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Income taxes paid	909	Tax line red herring: 9→ I
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0	1,005
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Net income	2,029
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### Consolidated Statement of Cash Flows

Cash and cash equivalents: beginning of period	7,971
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Net Income	2,029
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Net cash flows from operating activities	2,029
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Cash and cash equivalents: end of period	10,000
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### Statement of Assets & Liabilities

#### Assets

Cash and cash equivalents	10,000
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Accounts receivable	6,200
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Inventory	1,644
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Total current assets	17,844
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Total assets	17,844
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#### Liabilities

Accounts payable	2,100
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Current portion of debt	710
-------------------------	-----

Total current liabilities	2,810
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Long-term debt	14,200
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Total liabilities	17,010
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Stockholders' equity	834
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Correct value is 834: off by 18→ **R**

Receivables days (days sales outstanding)

75.4

(Accounts receivable) / (Revenue/365)

Payables days

29.4

(Accounts payable) / (operating expenses / 365)

Inventory days

30.0

(Inventory) / (COGS per day)

#### 4. Travels with Turtles

A popular, well-known travel company that owns its own infrastructure and cars, each of which require replacement every couple of decades. Travels with Turtles is financed with a loan from Standard Bank of Wonderland; some years it loses money.

Good brand recognition  
20-yr depreciation  
Deferred tax asset.

### Statement of Operations

#### Revenue

Total revenue	50,000
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#### Costs and expenses

Cost of goods sold	20,000	gross margin: 60%: high
Depreciation & amortization	5,000	Depreciation is 1/20 fixed assets
Advertising and marketing costs	250	
Salary and benefits	12,500	25% of revenue
Total operating expenses	37,750	
Income (loss) from operations	12,250	
Interest expense	(6,576)	interest rate: 6%
Income before taxes	5,674	
Income taxes paid	1,012	Tax line red herring: 12→ L
Net income	4,662	

### Consolidated Statement of Cash Flows

Cash and cash equivalents: beginning of period	10,338
Net Income	4,662
Depreciation & amortization	5,000
Net cash flows from operating activities	9,662
New debt incurred (repaid)	(10,000)
Net cash flows from financing activities	(10,000)
Cash and cash equivalents: end of period	10,000

### Statement of Assets & Liabilities

#### Assets

Cash and cash equivalents	10,000	
Accounts receivable	4,100	
Total current assets	14,100	
Property & fixed assets	100,000	
Goodwill & Intangible assets	13,000	Overpayment for acquisitions
Deferred tax asset	10,000	Tax credit from money-losing years
Total assets	137,100	

#### Liabilities

Accounts payable	3,100	
Current portion of debt	5,480	
Total current liabilities	8,580	
Long-term debt	109,600	
Total liabilities	118,180	
Stockholders' equity	18,925	Correct value is 18920: off by 5→ E

Depreciation years	20	(fixed assets) / depreciation
Receivables days (days sales outstanding)	29.9	(Accounts receivable) / (Revenue/365)
Payables days	29.9	(Accounts payable) / (operating expenses / 365)

## 10. White Rabbit Timepieces

This independent watch manufacturer has a **strong brand** and strives to reach exclusive Wonderland customers. Many Wonderland shops carry one or two types of Rabbit watches; in contrast, the company store carries each of hundreds of models and sizes. Distribution shops pay Rabbit only after a watch has sold.

Intangible assets  
high receivables

The manufacturing is done by hand using specialized equipment that typically lasts about 15 years.

High inventory

## Statement of Operations

### Revenue

Total revenue	30,000
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### Costs and expenses

Cost of goods sold	23,400	gross margin: 22%
Depreciation & amortization	1,500	
Advertising and marketing costs	150	
Salary and benefits	3,000	10% of revenue

Total operating expenses	28,050
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Income (loss) from operations	1,950
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Interest expense	(306)	interest rate: 6%
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Income before taxes	1,644
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Income taxes paid	404	Tax line red herring: 4 → D
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0	501
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Net income	1,240
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## Consolidated Statement of Cash Flows

Cash and cash equivalents: beginning of period	7,260
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Net Income	1,240
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Depreciation & amortization	1,500
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Net cash flows from operating activities	2,740
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Cash and cash equivalents: end of period	10,000
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## Statement of Assets & Liabilities

### Assets

Cash and cash equivalents	10,000
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Accounts receivable	6,200
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Inventory	4,808
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Total current assets	21,008
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Property & fixed assets	30,000
-------------------------	--------

Goodwill & Intangible assets	13,000	Overpayment for acquisitions
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Total assets	64,008
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### Liabilities

Accounts payable	2,300
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Current portion of debt	255
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Total current liabilities	2,555
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Long-term debt	5,100
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Total liabilities	7,655
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Stockholders' equity	56,364	Correct value is 56353: off by 11 → K
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Depreciation years	20	(fixed assets) / depreciation
Receivables days (days sales outstanding)	75.4	(Accounts receivable) / (Revenue/365)
Payables days	29.9	(Accounts payable) / (operating expenses / 365)
Inventory days	74.9	(Inventory) / (COGS per day)

#### 14. Tweedle Brothers Essential Supplies

This small customer shop, like many in Wonderland, sells looking glasses, toothpaste, and magic potions. The brothers own their building and staff the counter themselves whenever possible. The shop only keeps the most commonly needed items and is often out-of-stock. Tweedle Brothers is slow to pay its bills.

low margins  
some depreciation  
low salary costs  
low inventory  
high accounts payables.

#### Statement of Operations

##### Revenue

Total revenue	10,000	small
<b>Costs and expenses</b>		
Cost of goods sold	8,500	gross margin: 15%
Depreciation & amortization	500	
Salary and benefits	300	3% of revenue
Total operating expenses	9,300	
Income (loss) from operations	700	
Interest expense	(275)	interest rate: 11%
Income before taxes	425	
Income taxes paid	18	Tax line red herring: 18→ R
Net income	407	

#### Consolidated Statement of Cash Flows

Cash and cash equivalents: beginning of period	9,093
Net Income	407
Depreciation & amortization	500
Net cash flows from operating activities	907
Cash and cash equivalents: end of period	10,000

#### Statement of Assets & Liabilities

##### Assets

Cash and cash equivalents	10,000
Inventory	233
Total current assets	10,233
Property & fixed assets	10,000
Total assets	20,233

##### Liabilities

Accounts payable	1,900
Current portion of debt	125
Total current liabilities	2,025
Long-term debt	2,500
Total liabilities	4,525
<b>Stockholders' equity</b>	15,713

Correct value is 15708: off by 5→ E

Depreciation years	20	(fixed assets) / depreciation
Payables days	74.5	(Accounts payable) / (operating expenses / 365)
Inventory days	10.0	(Inventory) / (COGS per day)