Growth and Fixed Costs: Solution

You come across a pile of financial statements, of two Wonderland banks and all their customers. You hear that they were set aside for tax irregularities... something here doesn't add up.

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.
- The number "13024" appears frequently and is in a different font. This should be the most notable thing about the cash flow statements.
- When the statements are put in order, the tax amounts (in the statement of operations) can be converted to numbers to read "Taxes form a 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 "SEARCHHBSPHARVARDEDU" or Search hbsp.harvard.edu .

3. Search for the out-of-place number

If you search hbsp.harvard.edu for "13024"— every company's cash balance at the end of the period, the only number introduced that's not a multiple of 100, and the amount of other items such as legal fees or goodwill—you get a case with subtitle "Women are the solution" (for testsolving) or with title "The answer is secondary" during hunt.

Growth and Fixed Costs: Solution

You come across a pile of financial statements, of two Wonderland banks and all their customers. You hear that they were set aside for tax irregularities... something here doesn't add up.

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 whiting 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 recievable 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 TM and Eatme TM 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 high gross margin (from low tea costs)

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 high 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; inventory is low 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

19. Wonderland Pie Holdings

This company owns several restaurant brands in Wonderland. It advertises heavily for all its brands, but since many locations are out-of-the-way and staff tends to be grumpy, the restaurants are generally not that popular. It is owned by the Red Queen, who receives some cash from it every year. She takes pride in the fact that Wonderland Pie is bigger than other restauranteurs (but they have noticed that she still pays her vendors a lot for ingredients).

Marketing high, rent low intangible asset is low relatively low salaries dividend payment Goodwill asset

20. Right Raven Pub

A small pub owned by a group of the Red Queen's guards that operates out of a house in the court and receives food and beer deliveries daily. The guards are happy waiters and bartenders, even though they expect the Queen to take any of the pub's profits.

no rental costs inventory < 3 days' profits are kept low; salaries are high

Right Raven is financed via a large loan from First Wonderland that they expect to roll over when it comes due in several years.

high long-term debt; no current portion

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

Revenue		
Total revenue	600,000	
Costs and expenses		
Cost of goods sold	468,000	gross margin: 22%
Occupancy costs	12,000	
Advertising and marketing costs	3,000	
Research & development	48,000	Chess set development
Salary and benefits	60,000	10% of revenue
Total operating expenses	591,000	
Income (loss) from operations	9,000	
Interest expense	(5,786)	interest rate: 11%
One-time settlement in legal dispute	500	
Income before taxes	3,714	
Income taxes paid	5	Taxes form a red herring: $5 \rightarrow E$
Net income	3,709	
Consolidated Statement of Cash Flows		
Cash and cash equivalents: beginning of period	611,268	
Net Income	3,709	
Net cash flows from operating activities	3,709	
Dividend payment	(927)	Court unkeen
Net cash flows from financing activities	(927)	Court upkeep
Cash and cash equivalents: end of period	614,050	
Cash and cash equivalents, end of period	614,050	
Statement of Assets & Liabilities		
<u>Assets</u>		
Cash and cash equivalents	614,050	
Inventory	38,466	
Total current assets	652,516	
Goodwill & Intangible assets	6,140	Overpayment for acquisitions
Total assets	658,657	Correct sum is 658656: off by $1 \rightarrow A$
<u>Liabilities</u>		
Accounts payable	48,500	
Current portion of debt	2,630	
Total current liabilities	51,130	
Long-term debt	52,600	
Total liabilities	103,730	
Stockholders' equity	554,927	
Payables days	29.9	(Accounts payable) / (operating expenses / 365
Inventory days	30.0	(Inventory) / (COGS per day)
in the factor of	50.0	(military), (coop per day)

19. Wonderland Pie Holdings

This company owns several restaurant brands in Wonderland. It advertises heavily for all its brands, but since many locations are out-of-the-way and staff tends to be grumpy, the restaurants are generally not that popular. It is owned by the Red Queen, who receives some cash from it every year. She takes pride in the fact that Wonderland Pie is bigger than other restauranteurs (but they have noticed that she still pays her vendors a lot for ingredients).

Marketing high, rent low intangible asset is low relatively low salaries dividend payment Goodwill asset

Revenue		
Total revenue	2,400,000	
Costs and expenses		
Cost of goods sold	2,040,000	gross margin: 15%
Occupancy costs	48,000	
Advertising and marketing costs	60,000	
Salary and benefits	210,000	9% of revenue
Total operating expenses	2,358,000	
Income (loss) from operations	42,000	
Interest expense	(6,108)	interest rate: 6%
Income before taxes	35,892	
Income taxes paid	10,014	Taxes form a red herring: $14 \rightarrow N$
Net income	25,878	
Consolidated Statement of Cash Flows	;	
Cash and cash equivalents: beginning of period	574,767	
Net Income	25,878	
Net cash flows from operating activities	25,878	
New debt incurred (repayed)	61,405	
Dividend payment	(48,000)	Cash to Red Queen
Net cash flows from financing activities	13,405	
Cash and cash equivalents: end of period	614,050	
Statement of Assets & Liabilities		
Assets		
Cash and cash equivalents	614,050	
Inventory	44,712	
Total current assets		
	658,762	Overnayment for acquisitions
Goodwill & Intangible assets	658,762 614,050	Overpayment for acquisitions Correct sum is 1272812: off by 4→ D
Goodwill & Intangible assets Total assets	658,762	Overpayment for acquisitions Correct sum is 1272812: off by 4→ D
Goodwill & Intangible assets Total assets Liabilities	658,762 614,050 1,272,816	* *
Goodwill & Intangible assets Total assets Liabilities Accounts payable	658,762 614,050 1,272,816 290,700	* *
Goodwill & Intangible assets Total assets Liabilities Accounts payable Current portion of debt	658,762 614,050 1,272,816 290,700 5,090	* *
Goodwill & Intangible assets Total assets Liabilities Accounts payable Current portion of debt Total current liabilities	658,762 614,050 1,272,816 290,700 5,090 295,790	* *
Goodwill & Intangible assets Total assets Liabilities Accounts payable Current portion of debt Total current liabilities Long-term debt	658,762 614,050 1,272,816 290,700 5,090 295,790 101,800	* *
Goodwill & Intangible assets Total assets Liabilities Accounts payable Current portion of debt Total current liabilities Long-term debt Total liabilities	658,762 614,050 1,272,816 290,700 5,090 295,790	* *
Total assets Liabilities Accounts payable Current portion of debt Total current liabilities	658,762 614,050 1,272,816 290,700 5,090 295,790 101,800 397,590	* *

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

Revenue		
Total revenue	3,000,000	
Costs and expenses		
Cost of goods sold	1,740,000	gross margin: 42%: high
Depreciation & amortization	150,000	Depreciation is 1/100 fixed assets
Salary and benefits	90,000	3% of revenue: mostly automated
Total operating expenses	1,980,000	
Income (loss) from operations	1,020,000	
Interest expense	(786, 630)	interest rate: 6%
Income before taxes	233,370	
Income taxes paid	70,024	Taxes form a red herring: 24→ X
Net income	163,346	
Consolidated Statement of Cash Flow	'S	
Cash and cash equivalents: beginning of period	900,704	
Net Income	163,346	
Depreciation & amortization	150,000	
Net cash flows from operating activities	313,346	
New debt incurred (repayed)	(600,000)	
Net cash flows from financing activities	(600,000)	
Cash and cash equivalents: end of period	614,050	
Assets Cash and cash equivalents Accounts receivable	614,050 625,000	
Material inventory	47,671	Manufacturing inventory
Finished goods inventory	95,342	interaction inventory
Total current assets	1,382,064	Correct sum is 1382063: off by $1 \rightarrow A$
Property & fixed assets	15,000,000	2011-01-04-11-11-02-00-1-011-01-1-1-1-1-1-1-1-1-1-
Goodwill & Intangible assets	6,140	Overpayment for acquisitions
Total assets	16,388,204	The Property of the Property o
Liabilities	, ,	
Accounts payable		
	406,800	
	406,800 655,525	
Current portion of debt Total current liabilities	655,525	
Current portion of debt		
Current portion of debt Total current liabilities	655,525 1,062,325	
Current portion of debt Total current liabilities Long-term debt	655,525 1,062,325 13,110,500	
Current portion of debt Total current liabilities Long-term debt Total liabilities Stockholders' equity	655,525 1,062,325 13,110,500 14,172,825	(fixed assets) / depreciation
Current portion of debt Total current liabilities Long-term debt Total liabilities	655,525 1,062,325 13,110,500 14,172,825 2,215,379	(fixed assets) / depreciation (Accounts receivable) / (Revenue/365)
Current portion of debt Total current liabilities Long-term debt Total liabilities Stockholders' equity Depreciation years	655,525 1,062,325 13,110,500 14,172,825 2,215,379	

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.

Revenue		
Total revenue	1,800,000	
Costs and expenses		
Cost of goods sold	1,440,000	gross margin: 20%
Depreciation & amortization	225,000	
Salary and benefits	54,000	3% of revenue
Total operating expenses	1,719,000	
Income (loss) from operations	81,000	
Interest expense	(29,862)	interest rate: 6%
Income before taxes	51,138	
Income taxes paid	10,006	Taxes form a red herring: $6 \rightarrow F$
Net income	41,132	
Consolidated Statement of Cash Flows	s	
Cash and cash equivalents: beginning of period	347,918	
Net Income	41,132	
Depreciation & amortization	225,000	
Net cash flows from operating activities	266,132	
Cash and cash equivalents: end of period	614,050	
Statement of Assets & Liabilities		
Assets		
Cash and cash equivalents	614,050	
Accounts receivable	375,000	
Material inventory	39,452	Manufacturing inventory
Finished goods inventory	78,904	
Total current assets	1,107,406	
Property & fixed assets	4,500,000	
Deferred tax asset	614,050	Tax credit from money-losing years
Total assets	6,221,456	
<u>Liabilities</u>		
Accounts payable	353,200	
Current portion of debt	24,885	
Total current liabilities	378,085	
Long-term debt	497,700	
Total liabilities	875,785	
Stockholders' equity	5,345,679	Correct value is 5345671: off by $8 \rightarrow \mathbf{H}$
Depreciation years	20	(fixed assets) / depreciation
Receivables days (days sales outstanding)	76.0	(Accounts receivable) / (Revenue/365)
Payables days	74.9	(Accounts payable) / (operating expenses / 365)
Inventory days		(Tiecounts payable) / (Operating expenses / 303)

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 high gross margin debt-financed

Revenue		
Total revenue	600,000	
Costs and expenses		
Cost of goods sold	420,000	gross margin: 30%: low-priced raw tea
Occupancy costs	12,000	
Salary and benefits	60,000	10% of revenue
Total operating expenses	492,000	
Income (loss) from operations	108,000	
Interest expense	(57,068)	interest rate: 11%
One-time settlement in legal dispute	(500)	
Income before taxes	50,432	
Income taxes paid	10,018	Taxes form a red herring: $18 \rightarrow \mathbf{R}$
Net income	40,414	
Consolidated Statement of Cash Flows	;	
Cash and cash equivalents: beginning of period	(326, 364)	
Net Income	40,414	
Net cash flows from operating activities	40,414	
New debt incurred (repayed)	900,000	
Net cash flows from financing activities	900,000	
Cash and cash equivalents: end of period	614,050	
Statement of Assets & Liabilities		
Assets		
Cash and cash equivalents	614,050	
Inventory	34,521	
Total current assets	648,571	
Total assets	648,571	
Liabilities		
Accounts payable	40,400	
Total current liabilities	40,400	
Long-term debt	518,800	
Total liabilities	559,200	
Stockholders' equity	89,389	Correct value is 89371: off by $18 \rightarrow \mathbb{R}$
Payables days	29.9	(Accounts payable) / (operating expenses / 365)
Inventory days	30.0	(Inventory) / (COGS per day)
in ontoly days	30.0	(iii. thirti) / (coob per duj)

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

Revenue		
Total revenue	2,400,000	
Costs and expenses		
Cost of goods sold	1,560,000	gross margin: 35%
Depreciation & amortization	240,000	
Advertising and marketing costs	120,000	
Salary and benefits	240,000	10% of revenue
Total operating expenses	2,160,000	
Income (loss) from operations	240,000	
Interest expense	(15,402)	interest rate: 6%
Income before taxes	224,598	
Income taxes paid	70,018	Taxes form a red herring: $18 \rightarrow R$
Net income	154,580	
Consolidated Statement of Cash Flows	;	
Cash and cash equivalents: beginning of period	219,470	
Net Income	154,580	
Depreciation & amortization	240,000	
Net cash flows from operating activities	394,580	
Cash and cash equivalents: end of period	614,050	
Statement of Assets & Liabilities <u>Assets</u>		
Cash and cash equivalents	614,050	
Accounts receivable	66,600	
Material inventory	42,740	Manufacturing inventory
Finished goods inventory	85,479	
Total current assets	808,869	
Property & fixed assets	2,400,000	
Total assets	3,208,869	
<u>Liabilities</u>	70.100	
Accounts payable	59,100	
Current portion of debt	12,835	
Total current liabilities	71,935	
Long-term debt	256,700	
Total liabilities	328,635	Comment of the 20000224 MM 20 1 P
Stockholders' equity	2,880,236	Correct value is 2880234: off by $2 \rightarrow \mathbf{B}$
Depreciation years	10	(fixed assets) / depreciation
Receivables days (days sales outstanding)	10.1	(Accounts receivable) / (Revenue/365)
Payables days	9.98	(Accounts payable) / (operating expenses / 365
Inventory days		

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.

Revenue		
Total revenue	1,800,000	
Costs and expenses		
Cost of goods sold	1,170,000	gross margin: 35%
Occupancy costs	36,000	
Salary and benefits	180,000	10% of revenue
Total operating expenses	1,386,000	
Income (loss) from operations	414,000	
Interest expense	(93,036)	interest rate: 6%
One-time settlement in legal dispute	(500)	
Income before taxes	320,464	
Income taxes paid	100,018	Taxes form a red herring: $18 \rightarrow \mathbf{R}$
Net income	220,446	
Consolidated Statement of Cash Flows	;	
Cash and cash equivalents: beginning of period	(506, 396)	
Net Income	220,446	
Net cash flows from operating activities	220,446	
New debt incurred (repayed)	900,000	
Net cash flows from financing activities	900,000	
Cash and cash equivalents: end of period	614,050	
Statement of Assets & Liabilities		
Assets		
Cash and cash equivalents	614,050	
Inventory	96, 164	
Total current assets	710,214	
Goodwill & Intangible assets	614,050	Overpayment for acquisitions
Deferred tax asset	614,050	Tax credit from money-losing years
Total assets	1,938,322	Correct sum is 1938314: off by $8 \rightarrow \mathbf{H}$
Liabilities		•
Accounts payable	113,900	
Current portion of debt	77,530	
Total current liabilities	191,430	
Long-term debt	1,550,600	
Total liabilities	1,742,030	
Stockholders' equity	196,292	
<u> </u>	, -	
Payables days	29.9	(Accounts payable) / (operating expenses / 365
Inventory days		(Inventory) / (COGS per day)
THEOREM AND A COUNTY OF THE CO	29.9	(mventory) / (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.

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

smaller intangible asset staff are underpaid; inventory is low payables not too high No oyster vendors...

"banking fees" are hiding revenue

Revenue		
Total revenue	1,200,000	small
Costs and expenses		
Cost of goods sold	97,500	Walrus tricks oysters into coming in for free.
Depreciation & amortization	30,702	
Occupancy costs	60,000	
Salary and benefits	92, 107	8% of revenue
Banking fees	61,405	Untaxed revenue passed through Walrus's bank
Total operating expenses	341,715	
Income (loss) from operations	858, 285	
Interest expense	(5,916)	interest rate: 6%
Income before taxes	852,369	
Income taxes paid	280,009	Taxes form a red herring: $9 \rightarrow I$
Net income	572,360	
Consolidated Statement of Cash Flo	ws	
Cash and cash equivalents: beginning of period		
Net Income	572,360	
Depreciation & amortization	30,702	
	603,062	
Net cash flows from operating activities Cash and cash equivalents: end of period	603,062 614,050	
Net cash flows from operating activities Cash and cash equivalents: end of period		
Net cash flows from operating activities		
Net cash flows from operating activities Cash and cash equivalents: end of period Statement of Assets & Liabilities Assets	614,050	
Net cash flows from operating activities Cash and cash equivalents: end of period Statement of Assets & Liabilities Assets Cash and cash equivalents	614,050 614,050	
Net cash flows from operating activities Cash and cash equivalents: end of period Statement of Assets & Liabilities Assets	614,050	
Net cash flows from operating activities Cash and cash equivalents: end of period Statement of Assets & Liabilities Assets Cash and cash equivalents	614,050 614,050	
Net cash flows from operating activities Cash and cash equivalents: end of period Statement of Assets & Liabilities Assets Cash and cash equivalents Inventory	614,050 614,050 2,137	
Net cash flows from operating activities Cash and cash equivalents: end of period Statement of Assets & Liabilities Assets Cash and cash equivalents Inventory Total current assets	614,050 614,050 2,137 616,187	Value of strong(ish) brand
Net cash flows from operating activities Cash and cash equivalents: end of period Statement of Assets & Liabilities Assets Cash and cash equivalents Inventory Total current assets Property & fixed assets	614,050 614,050 2,137 616,187 614,050	Value of strong(ish) brand Correct sum is 1233237: off by 5→ E
Net cash flows from operating activities Cash and cash equivalents: end of period Statement of Assets & Liabilities Assets Cash and cash equivalents Inventory Total current assets Property & fixed assets Goodwill & Intangible assets	614,050 614,050 2,137 616,187 614,050 3,000	
Net cash flows from operating activities Cash and cash equivalents: end of period Statement of Assets & Liabilities Assets Cash and cash equivalents Inventory Total current assets Property & fixed assets Goodwill & Intangible assets Total assets Liabilities	614,050 614,050 2,137 616,187 614,050 3,000	
Net cash flows from operating activities Cash and cash equivalents: end of period Statement of Assets & Liabilities Assets Cash and cash equivalents Inventory Total current assets Property & fixed assets Goodwill & Intangible assets Total assets	614,050 614,050 2,137 616,187 614,050 3,000 1,233,242	
Net cash flows from operating activities Cash and cash equivalents: end of period Statement of Assets & Liabilities Assets Cash and cash equivalents Inventory Total current assets Property & fixed assets Goodwill & Intangible assets Total assets Liabilities Accounts payable	614,050 614,050 2,137 616,187 614,050 3,000 1,233,242 28,000	
Net cash flows from operating activities Cash and cash equivalents: end of period Statement of Assets & Liabilities Assets Cash and cash equivalents Inventory Total current assets Property & fixed assets Goodwill & Intangible assets Total assets Liabilities Accounts payable Current portion of debt	614,050 614,050 2,137 616,187 614,050 3,000 1,233,242 28,000 4,930	
Net cash flows from operating activities Cash and cash equivalents: end of period Statement of Assets & Liabilities Assets Cash and cash equivalents Inventory Total current assets Property & fixed assets Goodwill & Intangible assets Total assets Liabilities Accounts payable Current portion of debt Total current liabilities	614,050 614,050 2,137 616,187 614,050 3,000 1,233,242 28,000 4,930 32,930 98,600	
Net cash flows from operating activities Cash and cash equivalents: end of period Statement of Assets & Liabilities Assets Cash and cash equivalents Inventory Total current assets Property & fixed assets Goodwill & Intangible assets Total assets Liabilities Accounts payable Current portion of debt Total current liabilities Long-term debt	614,050 614,050 2,137 616,187 614,050 3,000 1,233,242 28,000 4,930 32,930	
Net cash flows from operating activities Cash and cash equivalents: end of period Statement of Assets & Liabilities Assets Cash and cash equivalents Inventory Total current assets Property & fixed assets Goodwill & Intangible assets Total assets Liabilities Accounts payable Current portion of debt Total current liabilities Long-term debt Total liabilities Stockholders' equity	614,050 614,050 2,137 616,187 614,050 3,000 1,233,242 28,000 4,930 32,930 98,600 131,530 1,101,712	Correct sum is 1233237: off by $5 \rightarrow \mathbf{E}$
Net cash flows from operating activities Cash and cash equivalents: end of period Statement of Assets & Liabilities Assets Cash and cash equivalents Inventory Total current assets Property & fixed assets Goodwill & Intangible assets Total assets Liabilities Accounts payable Current portion of debt Total current liabilities Long-term debt Total liabilities	614,050 614,050 2,137 616,187 614,050 3,000 1,233,242 28,000 4,930 32,930 98,600 131,530	

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

Revenue		
Total revenue	600,000	
Costs and expenses		
Cost of goods sold	492,000	gross margin: 18%
Depreciation & amortization	30,000	
Salary and benefits	60,000	10% of revenue
Total operating expenses	582,000	
Income (loss) from operations	18,000	
Interest expense	(10,945)	interest rate: 11%
Income before taxes	7,055	
Income taxes paid	13	Taxes form a red herring: $13 \rightarrow M$
Net income	7,042	
Consolidated Statement of Cash Flows	;	
Cash and cash equivalents: beginning of period	606,808	
Net Income	7,042	
Depreciation & amortization	200	
Net cash flows from operating activities	7,242	
Cash and cash equivalents: end of period	614,050	
Statement of Assets & Liabilities		
Assets		
Cash and cash equivalents	614,050	
Accounts receivable	16,600	
Material inventory	4,493	Manufacturing inventory
Finished goods inventory	8,986	
Total current assets	644,129	
Property & fixed assets	600,000	
Total assets	1,244,148	Correct sum is 1244129: off by $19 \rightarrow S$
Liabilities		•
Accounts payable	15,900	
Current portion of debt	4,975	
Total current liabilities	20,875	
Long-term debt	99,500	
Total liabilities	120,375	
Stockholders' equity	1,123,773	
Depreciation years	20	(fixed assets) / depreciation
Receivables days (days sales outstanding)	10.0	(Accounts receivable) / (Revenue/365)
Payables days	9.97	(Accounts payable) / (operating expenses / 365
r ayables days	5.57	(Accounts payable) / (oberating expenses / 505)

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	943,386	Higher interest rate: 11%
Other revenue	2,400,000	
Total revenue	3,343,386	
Costs and expenses		
Interest paid	210,000	
Provision for loan loss	60,000	
Occupancy costs	12,000	
Salary and benefits	585,092	17% of revenue: higher than other ban
Total operating expenses	867,092	
Income (loss) from operations	2,476,293	
Income before taxes	2,476,294	
Income taxes paid	820,001	Taxes form a red herring: $1 \rightarrow A$
Net income	1,656,293	
Consolidated Statement of Cash Flows		
Cash and cash equivalents: beginning of period	185,857	
Net Income	1,656,293	
Net cash flows from operating activities	1,656,293	
Purchases of treasury shares	(614,050)	
Proceeds from issuance (repurchase) of long-term debt	(614,050)	
Net cash flows from financing activities	(1,228,100)	
Cash and cash equivalents: end of period	614,050	
01-1		
Statement of Assets & Liabilities		
Assets	044.050	
Cash and cash equivalents	614,050	
Property & fixed assets	334,339	
Mortgage loans	6,140,500	Consumer loans
Loan assets	2,435,740	
Total assets	9,524,629	
<u>Liabilities</u>		
Deposits	3,000,000	
Total liabilities	3,000,000	
Stockholders' equity		

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

Revenue		
Total revenue	1,800,000	
Costs and expenses		
Cost of goods sold	1,440,000	gross margin: 20%
Occupancy costs	36,000	
Advertising and marketing costs	9,000	
Salary and benefits	180,000	10% of revenue
Total operating expenses	1,665,000	
Income (loss) from operations	135,000	
Interest expense	(9,141)	interest rate: 11%
Income before taxes	125,859	
Income taxes paid	40,018	Taxes form a red herring: $18 \rightarrow \mathbf{R}$
Net income	85,841	
Consolidated Statement of Cash Flows	;	
Cash and cash equivalents: beginning of period	528, 209	
Net Income	85,841	
Net cash flows from operating activities	85,841	
Cash and cash equivalents: end of period	614,050	
Statement of Assets & Liabilities Assets		
Cash and cash equivalents	614,050	
Inventory	118,356	
Total current assets	732,406	
Goodwill & Intangible assets	307,025	Value of strong brand
Total assets	1,039,431	
Liabilities	, ,	
Accounts payable	342, 100	
Current portion of debt	4,155	
Total current liabilities	346,255	
Long-term debt	83,100	
Total liabilities	429,355	
Stockholders' equity	610,080	Correct value is 610076: off by $4 \rightarrow \mathbf{D}$
Payables days	74.9	(Accounts payable) / (operating expenses / 365)
Inventory days	29.9	(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

intangible brand asset First Wonderland: (higher interest rate)

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.

Revenue		
Total revenue	2,400,000	
Costs and expenses		
Cost of goods sold	1,872,000	gross margin: 22%
Depreciation & amortization	15,000	
Advertising and marketing costs	12,000	
Research & development	192,000	
Salary and benefits	240,000	10% of revenue
Total operating expenses	2,331,000	
Income (loss) from operations	69,000	
Interest expense	(12,529)	interest rate: 11%
Income before taxes	56,471	
Income taxes paid	10,015	Taxes form a red herring: $15 \rightarrow O$
Net income	46,456	
Consolidated Statement of Cash Flows		
Cash and cash equivalents: beginning of period	702,594	
Net Income	46,456	
Depreciation & amortization	15,000	
Net cash flows from operating activities	61,456	
Net cash flows from investing activities	(150,000)	Investing in its own growth
Cash and cash equivalents: end of period	614,050	
Statement of Assets & Liabilities <u>Assets</u>		
Cash and cash equivalents	614,050	
Accounts receivable	200,000	
Material inventory	51,288	Manufacturing inventory
Finished goods inventory	102,575	
Total current assets	967,921	Correct sum is 967913: off by $8 \rightarrow \mathbf{H}$
Property & fixed assets	150,000	
Goodwill & Intangible assets	307,025	Value of strong brand
Total assets	1,424,946	
<u>Liabilities</u>	479 000	
Accounts payable	478,900	
Total current liabilities	478,900	
Long-term debt	113,900	
Total liabilities	592,800	
Stockholders' equity	832, 146	
Depreciation years	10	(fixed assets) / depreciation
Receivables days (days sales outstanding)	30.4	(Accounts receivable) / (Revenue/365)
Payables days	74.9	(Accounts payable) / (Nevenue/303) (Accounts payable) / (Operating expenses / 365)
Inventory days	29.9	(Inventory) / (COGS per day)
inventory days	29.9	(inventory) / (Coos 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

Revenue		
Revenue from interest	4,063,281	Lower interest rate: 6%
Revenue from fees	1,261,405	Credit card fees
Total revenue	5,324,686	
Costs and expenses		
Interest paid	1,440,000	
Provision for loan loss	300,000	
Occupancy costs	6,000	
Salary and benefits	159,741	3% of revenue
Special payment to small business owner	61,405	Purple Walrus "Fee" returned to Walrus
Total operating expenses	1,967,146	
Income (loss) from operations	3,357,540	
Income before taxes	3,357,540	
Income taxes paid	1,110,020	Taxes form a red herring: $20 \rightarrow T$
Net income	2,247,520	
Net Income Net cash flows from operating activities Proceeds from issuance (repurchase) of long-term debt Net cash flows from financing activities Cook and cook activities	2,247,520 2,247,520 (614,050) (614,050)	
Cash and cash equivalents: end of period	614,050	
Assets	C14.0F0	
Cash and cash equivalents	614,050	
Assets Cash and cash equivalents Property & fixed assets	532,469	
Assets Cash and cash equivalents Property & fixed assets Loan assets	532,469 67,107,300	
Assets Cash and cash equivalents Property & fixed assets Loan assets Other assets	532,469 67,107,300 614,050	
Assets Cash and cash equivalents Property & fixed assets Loan assets Other assets Total assets	532,469 67,107,300	
Assets Cash and cash equivalents Property & fixed assets Loan assets Other assets Total assets Liabilities	532,469 67,107,300 614,050 68,867,869	
Assets Cash and cash equivalents Property & fixed assets Loan assets Other assets Total assets Liabilities Deposits	532,469 67,107,300 614,050 68,867,869 36,000,000	
Assets Cash and cash equivalents Property & fixed assets Loan assets Other assets Total assets Liabilities	532,469 67,107,300 614,050 68,867,869	Correct value is 32867869: off by $19 \rightarrow 32867869$

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 $Drinkme^{TM}$ and $Eatme^{TM}$ 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

Revenue		
Total revenue	1,800,000	
Costs and expenses		
Cost of goods sold	1,170,000	gross margin: 35%
Occupancy costs	36,000	
Research & development	144,000	experimentation
Salary and benefits	180,000	10% of revenue
Total operating expenses	1,530,000	
Income (loss) from operations	270,000	
Interest expense	(6,248)	interest rate: 11%
Income before taxes	263,752	
Income taxes paid	80,004	Taxes form a red herring: $4 \rightarrow D$
Net income	183,748	
Consolidated Statement of Cash Flows		
Cash and cash equivalents: beginning of period	430,302	
Net Income	183,748	
Net cash flows from operating activities	183,748	
Cash and cash equivalents: end of period	614,050	
1	,	
Statement of Assets & Liabilities	,	
•	,	
Statement of Assets & Liabilities <u>Assets</u>	614,050	
Statement of Assets & Liabilities		
Statement of Assets & Liabilities <u>Assets</u> Cash and cash equivalents	614,050	
Statement of Assets & Liabilities Assets Cash and cash equivalents Inventory	614,050 96,164	Correct sum is 710214: off by $18 \rightarrow \mathbb{R}$
Statement of Assets & Liabilities Assets Cash and cash equivalents Inventory Total current assets	614,050 96,164 710,214	Correct sum is 710214: off by $18 \rightarrow \mathbb{R}$
Statement of Assets & Liabilities Assets Cash and cash equivalents Inventory Total current assets Total assets Liabilities	614,050 96,164 710,214	Correct sum is 710214: off by $18 \rightarrow \mathbb{R}$
Statement of Assets & Liabilities Assets Cash and cash equivalents Inventory Total current assets Total assets	614,050 96,164 710,214 710,232	Correct sum is 710214: off by $18 \rightarrow \mathbb{R}$
Statement of Assets & Liabilities Assets Cash and cash equivalents Inventory Total current assets Total assets Liabilities Accounts payable	614,050 96,164 710,214 710,232 41,900	Correct sum is 710214: off by $18 \rightarrow \mathbb{R}$
Statement of Assets & Liabilities Assets Cash and cash equivalents Inventory Total current assets Total assets Liabilities Accounts payable Current portion of debt	614,050 96,164 710,214 710,232 41,900 2,840	Correct sum is 710214: off by $18 \rightarrow \mathbb{R}$
Statement of Assets & Liabilities Assets Cash and cash equivalents Inventory Total current assets Total assets Liabilities Accounts payable Current portion of debt Total current liabilities	614,050 96,164 710,214 710,232 41,900 2,840 44,740	Correct sum is 710214: off by $18 \rightarrow \mathbb{R}$
Statement of Assets & Liabilities Assets Cash and cash equivalents Inventory Total current assets Total assets Liabilities Accounts payable Current portion of debt Total current liabilities Long-term debt	614,050 96,164 710,214 710,232 41,900 2,840 44,740 56,800	Correct sum is 710214: off by $18 \rightarrow \mathbb{R}$
Statement of Assets & Liabilities Assets Cash and cash equivalents Inventory Total current assets Total assets Liabilities Accounts payable Current portion of debt Total current liabilities Long-term debt Total liabilities	614,050 96,164 710,214 710,232 41,900 2,840 44,740 56,800 101,540	Correct sum is 710214: off by $18 \rightarrow \mathbb{R}$ (Accounts payable) / (operating expenses / 365)

20. Right Raven Pub

A small pub owned by a group of the Red Queen's guards that operates out of a house in the court and receives food and beer deliveries daily. The guards are happy waiters and bartenders, even though they expect the Queen to take any of the pub's profits.

Right Raven is financed via a large loan from First Wonderland that they expect to roll over when it comes due in several years.

no rental costs inventory < 3 days' profits are kept low; salaries are high

high long-term debt; no current portion

Revenue		
Total revenue	600,000	small
Costs and expenses		
Cost of goods sold	402,000	gross margin: 33%
Depreciation & amortization	30	
Salary and benefits	162,000	27% of revenue
Total operating expenses	564,030	
Income (loss) from operations	35,970	
Interest expense	(59,701)	interest rate: 11%
Income before taxes	(23,731)	
Income taxes paid	(6,993)	Taxes form a red herring: $7 \rightarrow G$
Net income	(16,738)	Guards keep income low since it'd go to the Queen
Consolidated Statement of Cash Flows		
Cash and cash equivalents: beginning of period	630,758	
Net Income	(16,738)	
	30	
Depreciation & amortization	30	
Depreciation & amortization Net cash flows from operating activities	(16,708)	
Net cash flows from operating activities	(16,708)	
Net cash flows from operating activities Cash and cash equivalents: end of period Statement of Assets & Liabilities	(16,708)	
Net cash flows from operating activities Cash and cash equivalents: end of period Statement of Assets & Liabilities <u>Assets</u>	(16,708) 614,050	
Net cash flows from operating activities Cash and cash equivalents: end of period Statement of Assets & Liabilities Assets Cash and cash equivalents	(16,708) 614,050	
Net cash flows from operating activities Cash and cash equivalents: end of period Statement of Assets & Liabilities Assets Cash and cash equivalents Inventory	(16,708) 614,050 614,050 2,203	Low equipment: operates out of someone's house.
Net cash flows from operating activities Cash and cash equivalents: end of period Statement of Assets & Liabilities Assets Cash and cash equivalents Inventory Total current assets	(16,708) 614,050 614,050 2,203 616,253	Low equipment: operates out of someone's house.
Net cash flows from operating activities Cash and cash equivalents: end of period Statement of Assets & Liabilities Assets Cash and cash equivalents Inventory Total current assets Property & fixed assets	(16,708) 614,050 614,050 2,203 616,253 600	Low equipment: operates out of someone's house.
Net cash flows from operating activities Cash and cash equivalents: end of period Statement of Assets & Liabilities Assets Cash and cash equivalents Inventory Total current assets Property & fixed assets Total assets	(16,708) 614,050 614,050 2,203 616,253 600	Low equipment: operates out of someone's house.
Net cash flows from operating activities Cash and cash equivalents: end of period Statement of Assets & Liabilities Assets Cash and cash equivalents Inventory Total current assets Property & fixed assets Total assets Liabilities	(16,708) 614,050 614,050 2,203 616,253 600 616,853	Low equipment: operates out of someone's house.
Net cash flows from operating activities Cash and cash equivalents: end of period Statement of Assets & Liabilities Assets Cash and cash equivalents Inventory Total current assets Property & fixed assets Total assets Liabilities Accounts payable Total current liabilities Long-term debt	(16,708) 614,050 614,050 2,203 616,253 600 616,853 46,300	Low equipment: operates out of someone's house.
Net cash flows from operating activities Cash and cash equivalents: end of period Statement of Assets & Liabilities Assets Cash and cash equivalents Inventory Total current assets Property & fixed assets Total assets Liabilities Accounts payable Total current liabilities	(16,708) 614,050 614,050 2,203 616,253 600 616,853 46,300 46,300	Low equipment: operates out of someone's house.
Net cash flows from operating activities Cash and cash equivalents: end of period Statement of Assets & Liabilities Assets Cash and cash equivalents Inventory Total current assets Property & fixed assets Total assets Liabilities Accounts payable Total current liabilities Long-term debt	(16,708) 614,050 614,050 2,203 616,253 600 616,853 46,300 46,300 542,740	Low equipment: operates out of someone's house. Correct value is 27813: off by $21 \rightarrow U$
Net cash flows from operating activities Cash and cash equivalents: end of period Statement of Assets & Liabilities Assets Cash and cash equivalents Inventory Total current assets Property & fixed assets Total assets Liabilities Accounts payable Total current liabilities Long-term debt Total liabilities Stockholders' equity	(16,708) 614,050 614,050 2,203 616,253 600 616,853 46,300 46,300 542,740 589,040	Correct value is 27813: off by $21 \rightarrow \mathbf{U}$
Net cash flows from operating activities Cash and cash equivalents: end of period Statement of Assets & Liabilities Assets Cash and cash equivalents Inventory Total current assets Property & fixed assets Total assets Liabilities Accounts payable Total current liabilities Long-term debt Total liabilities	(16,708) 614,050 614,050 2,203 616,253 600 616,853 46,300 46,300 542,740 589,040 27,834	

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 whiting 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 recievable balances low as well.

high fixed assets low accounts receivable

Revenue		
Total revenue	3,000,000	
Costs and expenses		
Cost of goods sold	1,950,000	gross margin: 35%: high
Depreciation & amortization	375,000	
Salary and benefits	300,000	10% of revenue
Total operating expenses	2,625,000	
Income (loss) from operations	375,000	
Interest expense	(40, 116)	interest rate: 6%
Income before taxes	334,884	
Income taxes paid	110,019	Taxes form a red herring: $19 \rightarrow S$
Net income	224,865	
Consolidated Statement of Cash Flow	/S	
Cash and cash equivalents: beginning of period	1,214,185	
Net Income	224,865	
Depreciation & amortization	375,000	
Net cash flows from operating activities	599,865	
New debt incurred (repayed)	(1,200,000)	
	(1, 200, 000)	
Net cash flows from financing activities	(1,200,000)	
Net cash flows from financing activities Cash and cash equivalents: end of period	614,050	
	, , ,	
Cash and cash equivalents: end of period	, , ,	
Cash and cash equivalents: end of period Statement of Assets & Liabilities Assets	, , ,	
Cash and cash equivalents: end of period Statement of Assets & Liabilities	614,050	
Cash and cash equivalents: end of period Statement of Assets & Liabilities Assets Cash and cash equivalents Accounts receivable	614,050 614,050	Manufacturing inventory
Cash and cash equivalents: end of period Statement of Assets & Liabilities Assets Cash and cash equivalents Accounts receivable Material inventory	614,050 614,050 83,300 53,425	Manufacturing inventory
Cash and cash equivalents: end of period Statement of Assets & Liabilities Assets Cash and cash equivalents Accounts receivable	614,050 614,050 83,300 53,425 106,849	
Cash and cash equivalents: end of period Statement of Assets & Liabilities Assets Cash and cash equivalents Accounts receivable Material inventory Finished goods inventory Total current assets	614,050 614,050 83,300 53,425 106,849 857,627	Manufacturing inventory Correct sum is 857624: off by 3→ C
Cash and cash equivalents: end of period Statement of Assets & Liabilities Assets Cash and cash equivalents Accounts receivable Material inventory Finished goods inventory	614,050 614,050 83,300 53,425 106,849 857,627 7,500,000	
Cash and cash equivalents: end of period Statement of Assets & Liabilities Assets Cash and cash equivalents Accounts receivable Material inventory Finished goods inventory Total current assets Property & fixed assets	614,050 614,050 83,300 53,425 106,849 857,627	
Cash and cash equivalents: end of period Statement of Assets & Liabilities Assets Cash and cash equivalents Accounts receivable Material inventory Finished goods inventory Total current assets Property & fixed assets Total assets Liabilities	614,050 614,050 83,300 53,425 106,849 857,627 7,500,000 8,357,627	
Cash and cash equivalents: end of period Statement of Assets & Liabilities Assets Cash and cash equivalents Accounts receivable Material inventory Finished goods inventory Total current assets Property & fixed assets Total assets	614,050 614,050 83,300 53,425 106,849 857,627 7,500,000	
Cash and cash equivalents: end of period Statement of Assets & Liabilities Assets Cash and cash equivalents Accounts receivable Material inventory Finished goods inventory Total current assets Property & fixed assets Total assets Liabilities Accounts payable	614,050 614,050 83,300 53,425 106,849 857,627 7,500,000 8,357,627 71,900	
Cash and cash equivalents: end of period Statement of Assets & Liabilities Assets Cash and cash equivalents Accounts receivable Material inventory Finished goods inventory Total current assets Property & fixed assets Total assets Liabilities Accounts payable Current portion of debt Total current liabilities	614,050 614,050 83,300 53,425 106,849 857,627 7,500,000 8,357,627 71,900 33,430	
Cash and cash equivalents: end of period Statement of Assets & Liabilities Assets Cash and cash equivalents Accounts receivable Material inventory Finished goods inventory Total current assets Property & fixed assets Total assets Liabilities Accounts payable Current portion of debt	614,050 614,050 83,300 53,425 106,849 857,627 7,500,000 8,357,627 71,900 33,430 105,330	
Cash and cash equivalents: end of period Statement of Assets & Liabilities Assets Cash and cash equivalents Accounts receivable Material inventory Finished goods inventory Total current assets Property & fixed assets Total assets Liabilities Accounts payable Current portion of debt Total current liabilities Long-term debt	614,050 614,050 83,300 53,425 106,849 857,627 7,500,000 8,357,627 71,900 33,430 105,330 668,600	
Cash and cash equivalents: end of period Statement of Assets & Liabilities Assets Cash and cash equivalents Accounts receivable Material inventory Finished goods inventory Total current assets Property & fixed assets Total assets Liabilities Accounts payable Current portion of debt Total current liabilities Long-term debt Total liabilities Stockholders' equity	614,050 83,300 53,425 106,849 857,627 7,500,000 8,357,627 71,900 33,430 105,330 668,600 773,930 7,583,697	Correct sum is 857624: off by $3 \rightarrow \mathbb{C}$
Cash and cash equivalents: end of period Statement of Assets & Liabilities Assets Cash and cash equivalents Accounts receivable Material inventory Finished goods inventory Total current assets Property & fixed assets Total assets Liabilities Accounts payable Current portion of debt Total current liabilities Long-term debt Total liabilities Stockholders' equity Depreciation years	614,050 83,300 53,425 106,849 857,627 7,500,000 8,357,627 71,900 33,430 105,330 668,600 773,930 7,583,697	Correct sum is 857624: off by $3 \rightarrow \mathbb{C}$ (fixed assets) / depreciation
Cash and cash equivalents: end of period Statement of Assets & Liabilities Assets Cash and cash equivalents Accounts receivable Material inventory Finished goods inventory Total current assets Property & fixed assets Total assets Liabilities Accounts payable Current portion of debt Total current liabilities Long-term debt Total liabilities Stockholders' equity	614,050 83,300 53,425 106,849 857,627 7,500,000 8,357,627 71,900 33,430 105,330 668,600 773,930 7,583,697	Correct sum is 857624: off by $3 \rightarrow \mathbb{C}$

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 high gross margin (from low tea costs)

Revenue		
Total revenue	1,800,000	
Costs and expenses		
Cost of goods sold	1,200,000	gross margin: 33%: low-priced raw tea
Occupancy costs	36,000	
Research & development	144,000	Tea combination development
Salary and benefits	180,000	10% of revenue
Total operating expenses	1,560,000	
Income (loss) from operations	240,000	
Interest expense	(95,711)	interest rate: 11%
One-time settlement in legal dispute	500	
Income before taxes	144,789	
Income taxes paid	40,005	Taxes form a red herring: $5 \rightarrow E$
Net income	104,784	
Consolidated Statement of Cash Flows		
Cash and cash equivalents: beginning of period	509,266	
Net Income	104,784	
Net cash flows from operating activities	104,784	
The cush nows from operating activities	10.,70.	
Cash and cash equivalents: end of period	614,050	
Cash and cash equivalents: end of period	,	
Cash and cash equivalents: end of period Statement of Assets & Liabilities	,	
Cash and cash equivalents: end of period Statement of Assets & Liabilities Assets	614,050	
Cash and cash equivalents: end of period Statement of Assets & Liabilities Assets Cash and cash equivalents	614,050 614,050	
Cash and cash equivalents: end of period Statement of Assets & Liabilities Assets Cash and cash equivalents Accounts receivable	614,050 614,050 375,000	
Cash and cash equivalents: end of period Statement of Assets & Liabilities Assets Cash and cash equivalents Accounts receivable Inventory	614,050 614,050 375,000 98,630	
Cash and cash equivalents: end of period Statement of Assets & Liabilities Assets Cash and cash equivalents Accounts receivable Inventory Total current assets	614,050 614,050 375,000 98,630 1,087,680	
Cash and cash equivalents: end of period Statement of Assets & Liabilities Assets Cash and cash equivalents Accounts receivable Inventory Total current assets Total assets	614,050 614,050 375,000 98,630	
Cash and cash equivalents: end of period Statement of Assets & Liabilities Assets Cash and cash equivalents Accounts receivable Inventory Total current assets Total assets Liabilities	614,050 614,050 375,000 98,630 1,087,680 1,087,680	
Cash and cash equivalents: end of period Statement of Assets & Liabilities Assets Cash and cash equivalents Accounts receivable Inventory Total current assets Total assets Liabilities Accounts payable	614,050 614,050 375,000 98,630 1,087,680 1,087,680 128,200	
Cash and cash equivalents: end of period Statement of Assets & Liabilities Assets Cash and cash equivalents Accounts receivable Inventory Total current assets Total assets Liabilities Accounts payable Current portion of debt	614,050 614,050 375,000 98,630 1,087,680 1,087,680 128,200 43,505	
Cash and cash equivalents: end of period Statement of Assets & Liabilities Assets Cash and cash equivalents Accounts receivable Inventory Total current assets Total assets Liabilities Accounts payable Current portion of debt Total current liabilities	614,050 614,050 375,000 98,630 1,087,680 1,087,680 128,200 43,505 171,705	
Cash and cash equivalents: end of period Statement of Assets & Liabilities Assets Cash and cash equivalents Accounts receivable Inventory Total current assets Total assets Liabilities Accounts payable Current portion of debt Total current liabilities Long-term debt	614,050 614,050 375,000 98,630 1,087,680 1,087,680 128,200 43,505 171,705 870,100	
Cash and cash equivalents: end of period Statement of Assets & Liabilities Assets Cash and cash equivalents Accounts receivable Inventory Total current assets Total assets Liabilities Accounts payable Current portion of debt Total current liabilities Long-term debt Total liabilities	614,050 614,050 375,000 98,630 1,087,680 1,087,680 128,200 43,505 171,705 870,100 1,041,805	
Cash and cash equivalents: end of period Statement of Assets & Liabilities Assets Cash and cash equivalents Accounts receivable Inventory Total current assets Total assets Liabilities Accounts payable Current portion of debt Total current liabilities Long-term debt	614,050 614,050 375,000 98,630 1,087,680 1,087,680 128,200 43,505 171,705 870,100	Correct value is 45875: off by $1 \rightarrow \mathbf{A}$
Cash and cash equivalents: end of period Statement of Assets & Liabilities Assets Cash and cash equivalents Accounts receivable Inventory Total current assets Total assets Liabilities Accounts payable Current portion of debt Total current liabilities Long-term debt Total liabilities Stockholders' equity	614,050 614,050 375,000 98,630 1,087,680 1,087,680 128,200 43,505 171,705 870,100 1,041,805	Correct value is 45875: off by $1 \rightarrow A$ (Accounts receivable) / (Revenue/365)
Cash and cash equivalents: end of period Statement of Assets & Liabilities Assets Cash and cash equivalents Accounts receivable Inventory Total current assets Total assets Liabilities Accounts payable Current portion of debt Total current liabilities Long-term debt Total liabilities	614,050 614,050 375,000 98,630 1,087,680 1,087,680 128,200 43,505 171,705 870,100 1,041,805 45,876	·

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

Revenue		
Total revenue	3,000,000	
Costs and expenses		
Cost of goods sold	1,200,000	gross margin: 60%: high
Depreciation & amortization	3,070,250	Depreciation is 1/20 fixed assets
Advertising and marketing costs	15,000	
Salary and benefits	750,000	25% of revenue
Total operating expenses	5,035,250	
Income (loss) from operations	(2,035,250)	
Interest expense	(3,033,126)	interest rate: 6%
Income before taxes	(5,068,376)	
Income taxes paid	(1,679,995)	Taxes form a red herring: $5 \rightarrow E$
Net income	(3,388,381)	
Consolidated Statement of Cash Flow	IS	
Cash and cash equivalents: beginning of period	1,546,231	
Net Income	(3,388,381)	
Depreciation & amortization	3,070,250	
Net cash flows from operating activities	(318,131)	
New debt incurred (repayed)	(614,050)	
Net cash flows from financing activities	(614,050)	
Cash and cash equivalents: end of period	614,050	
Ctatement of Access 9 Liabilities		
Statement of Assets & Liabilities Assets		
Cash and cash equivalents	614,050	
Accounts receivable	250,000	
Total current assets	864,050	
Property & fixed assets	61,405,000	
Goodwill & Intangible assets	307,025	Value of strong brand
Deferred tax asset	614,050	Tax credit from money-losing years
Total assets	63, 190, 125	Tax credit from money-tosing years
Liabilities	03, 190, 123	
Accounts payable	1,034,600	
Current portion of debt	2,527,605	
Total current liabilities	3,562,205	
Long-term debt	50,552,100	
Total liabilities	54,114,305	
Stockholders' equity	9,075,838	Correct value is 9075820: off by $18 \rightarrow \mathbb{R}$
Sweenblucts equity	9,013,030	Correct value is 30/3020. Off by 10-7 K
Depreciation years	20	(fixed assets) / depreciation
Receivables days (days sales outstanding)	30.4	(Accounts receivable) / (Revenue/365)
Payables days	74.9	(Accounts payable) / (operating expenses / 365)
J	,	(Treesants payaste), (operating expenses / 505)

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

Revenue		
Total revenue	1,800,000	
Costs and expenses		
Cost of goods sold	1,404,000	gross margin: 22%
Depreciation & amortization	90,000	
Advertising and marketing costs	9,000	
Salary and benefits	180,000	10% of revenue
Total operating expenses	1,683,000	
Income (loss) from operations	117,000	
Interest expense	(16, 242)	interest rate: 6%
Income before taxes	100,758	
Income taxes paid	30,001	Taxes form a red herring: $1 \rightarrow A$
Net income	70,757	-
Consolidated Statement of Cash Flows	6	
Cash and cash equivalents: beginning of period	453,293	
Net Income	70,757	
Depreciation & amortization	90,000	
Net cash flows from operating activities	160,757	
Cash and cash equivalents: end of period	614,050	
Statement of Assets & Liabilities		
Assets Cash and cash equivalents	614,050	
Accounts receivable	375,000	
Inventory	288,493	
Total current assets	1,277,543	
Property & fixed assets	1,800,000	
Goodwill & Intangible assets	307,025	Value of strong brand
Total assets	3,384,568	value of strong brand
Liabilities	3,364,306	
Accounts payable	138,300	
Current portion of debt	13,535	
Total current liabilities	151,835	
Long-term debt	270,700	
Total liabilities	422,535	
Stockholders' equity	2,962,049	Correct value is 2962033: off by $16 \rightarrow \mathbf{P}$
Stockholucis equity	2,302,049	Correct value is 2702033. Oil by 10 -> F
Depreciation years	15	(fixed assets) / depreciation
Receivables days (days sales outstanding)	76.0	(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.

Revenue		
Total revenue	600,000	small
Costs and expenses		
Cost of goods sold	510,000	gross margin: 15%
Depreciation & amortization	30,000	
Salary and benefits	18,000	3% of revenue
Total operating expenses	558,000	
Income (loss) from operations	42,000	
Interest expense	(10,802)	interest rate: 11%
Income before taxes	31,198	
Income taxes paid	10,008	Taxes form a red herring: $8 \rightarrow H$
Net income	21,190	
Consolidated Statement of Cash Flows		
Cash and cash equivalents: beginning of period	562,860	
Net Income	21,190	
Depreciation & amortization	30,000	
	£1 100	
Net cash flows from operating activities	51,190	
Net cash flows from operating activities Cash and cash equivalents: end of period	51,190 614,050	
Cash and cash equivalents: end of period	· · · · · · · · · · · · · · · · · · ·	
Cash and cash equivalents: end of period Statement of Assets & Liabilities	· · · · · · · · · · · · · · · · · · ·	
Cash and cash equivalents: end of period Statement of Assets & Liabilities Assets	614,050	
Cash and cash equivalents: end of period Statement of Assets & Liabilities Assets Cash and cash equivalents	614,050 614,050	
Cash and cash equivalents: end of period Statement of Assets & Liabilities Assets	614,050 614,050 13,973	
Cash and cash equivalents: end of period Statement of Assets & Liabilities Assets Cash and cash equivalents Inventory Total current assets	614,050 614,050 13,973 628,023	
Cash and cash equivalents: end of period Statement of Assets & Liabilities Assets Cash and cash equivalents Inventory	614,050 614,050 13,973 628,023 600,000	
Cash and cash equivalents: end of period Statement of Assets & Liabilities Assets Cash and cash equivalents Inventory Total current assets Property & fixed assets Total assets	614,050 614,050 13,973 628,023	
Cash and cash equivalents: end of period Statement of Assets & Liabilities Assets Cash and cash equivalents Inventory Total current assets Property & fixed assets Total assets Liabilities	614,050 614,050 13,973 628,023 600,000	
Cash and cash equivalents: end of period Statement of Assets & Liabilities Assets Cash and cash equivalents Inventory Total current assets Property & fixed assets Total assets	614,050 614,050 13,973 628,023 600,000 1,228,023	
Cash and cash equivalents: end of period Statement of Assets & Liabilities Assets Cash and cash equivalents Inventory Total current assets Property & fixed assets Total assets Liabilities Accounts payable	614,050 614,050 13,973 628,023 600,000 1,228,023 114,600	
Cash and cash equivalents: end of period Statement of Assets & Liabilities Assets Cash and cash equivalents Inventory Total current assets Property & fixed assets Total assets Liabilities Accounts payable Current portion of debt	614,050 614,050 13,973 628,023 600,000 1,228,023 114,600 4,910	
Cash and cash equivalents: end of period Statement of Assets & Liabilities Assets Cash and cash equivalents Inventory Total current assets Property & fixed assets Total assets Liabilities Accounts payable Current portion of debt Total current liabilities	614,050 614,050 13,973 628,023 600,000 1,228,023 114,600 4,910 119,510	
Cash and cash equivalents: end of period Statement of Assets & Liabilities Assets Cash and cash equivalents Inventory Total current assets Property & fixed assets Total assets Liabilities Accounts payable Current portion of debt Total current liabilities Long-term debt	614,050 614,050 13,973 628,023 600,000 1,228,023 114,600 4,910 119,510 98,200	Correct value is 1010313: off by $22 \rightarrow V$
Cash and cash equivalents: end of period Statement of Assets & Liabilities Assets Cash and cash equivalents Inventory Total current assets Property & fixed assets Total assets Liabilities Accounts payable Current portion of debt Total current liabilities Long-term debt Total liabilities Stockholders' equity	614,050 614,050 13,973 628,023 600,000 1,228,023 114,600 4,910 119,510 98,200 217,710 1,010,335	·
Cash and cash equivalents: end of period Statement of Assets & Liabilities Assets Cash and cash equivalents Inventory Total current assets Property & fixed assets Total assets Liabilities Accounts payable Current portion of debt Total current liabilities Long-term debt Total liabilities	614,050 614,050 13,973 628,023 600,000 1,228,023 114,600 4,910 119,510 98,200 217,710	Correct value is 1010313: off by 22→ V (fixed assets) / depreciation (Accounts payable) / (operating expenses / 365)