



Managerial Finance

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Chapter III

Mini case

Mini case

- **Donna Jamison brought as assistant to chairman of the board.**
- **The company doubled its plant capacity, opened new sales offices outside its home territory, and launched an expensive advertising campaign.**
- **Computron's results were not satisfactory, to put it mildly.**
- **As a result, Al Watkins, Computron's president, was informed that changes would have to be made, and quickly, or he would be fired.**

Balance sheet

<u>Assets</u>	2003	2004
Cash	\$9,000	\$7,282
Short-term investments.	48,600	20,000
Accounts receivable	351,200	632,160
Inventories	715,200	1,287,360
total current assets	\$1,124,000	\$1,946,802
Gross fixed assets	491,000	1,202,950
Less: accumulated depreciation	146,200	263,160
net fixed assets	\$344,800	\$939,790
Total assets	\$1,468,800	\$2,886,592

<u><i>Liabilities and equity</i></u>	2003	2004
Accounts payable	\$145,600	\$324,000
Notes payable	200,000	720,000
Accruals	136,000	284,960
total current liabilities	\$481,600	\$1,328,960
Long-term debt	323,432	1,000,000
Common stock (100,000 shares)	460,000	460,000
Retained earnings	203,768	97,632
total equity	\$663,768	\$557,632
Total liabilities and equity	\$1,468,800	\$2,886,592

Income statements

	2003	2004
Sales	\$3,432,000	\$5,834,400
Cost of goods sold	2,864,000	4,980,000
Other expenses	340,000	720,000
Depreciation	18,900	116,960
total operating costs	\$3,222,900	\$5,816,960
EBIT	\$209,100	\$17,440
Interest expense	62,500	176,000
EBT	\$146,600	(\$158,560)
Taxes (40%)	58,640	-63,424
Net income	\$87,960	(\$95,136)

Other data

2002

2003

Stock price

\$8.50

\$6.00

Shares outstanding

100,000

100,000

EPS

\$0.88

(\$0.95)

DPS

\$0.22

\$0.11

Statement of retained earnings, 2004

Balance of retained earnings, 12/31/2003	\$203,768
add: net income, 2004	(\$95,136)
less: dividend paid, 2004	(\$11,000)
Balance of retained earnings, 12/31/2004	<u>\$97,632</u>

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Operating activities

Net income	(\$95,136)
Adjustments:	
noncash adjustments:	
depreciation	116,960
changes in working capital:	
change in accounts receivable	-280,960
change in inventories	-572,160
change in accounts payable	178,400
change in accruals	148,960
Net cash provided by operating activities	(\$503,936)

Long-term investing activities

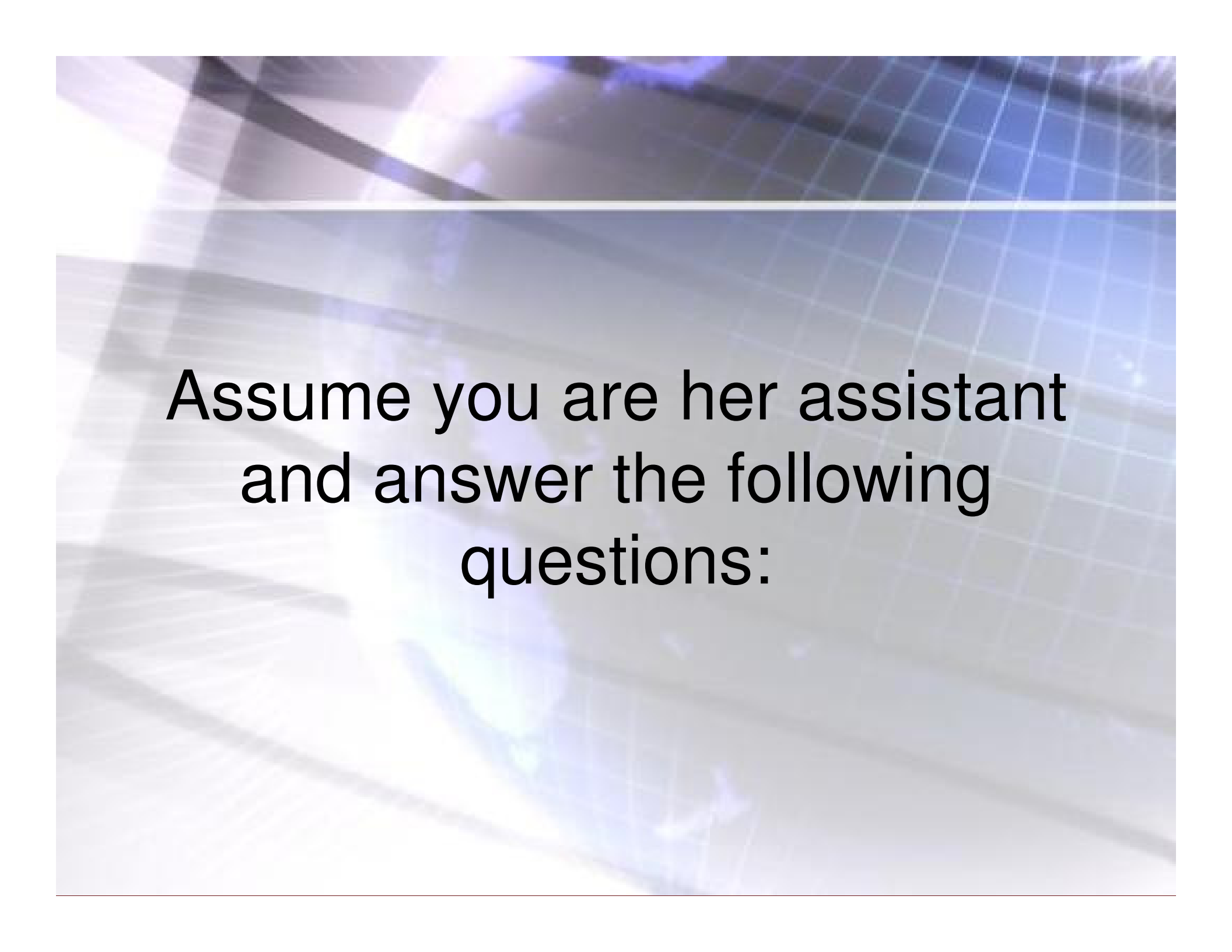
Cash used to acquire fixed assets	(\$711,950)
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Financing activities

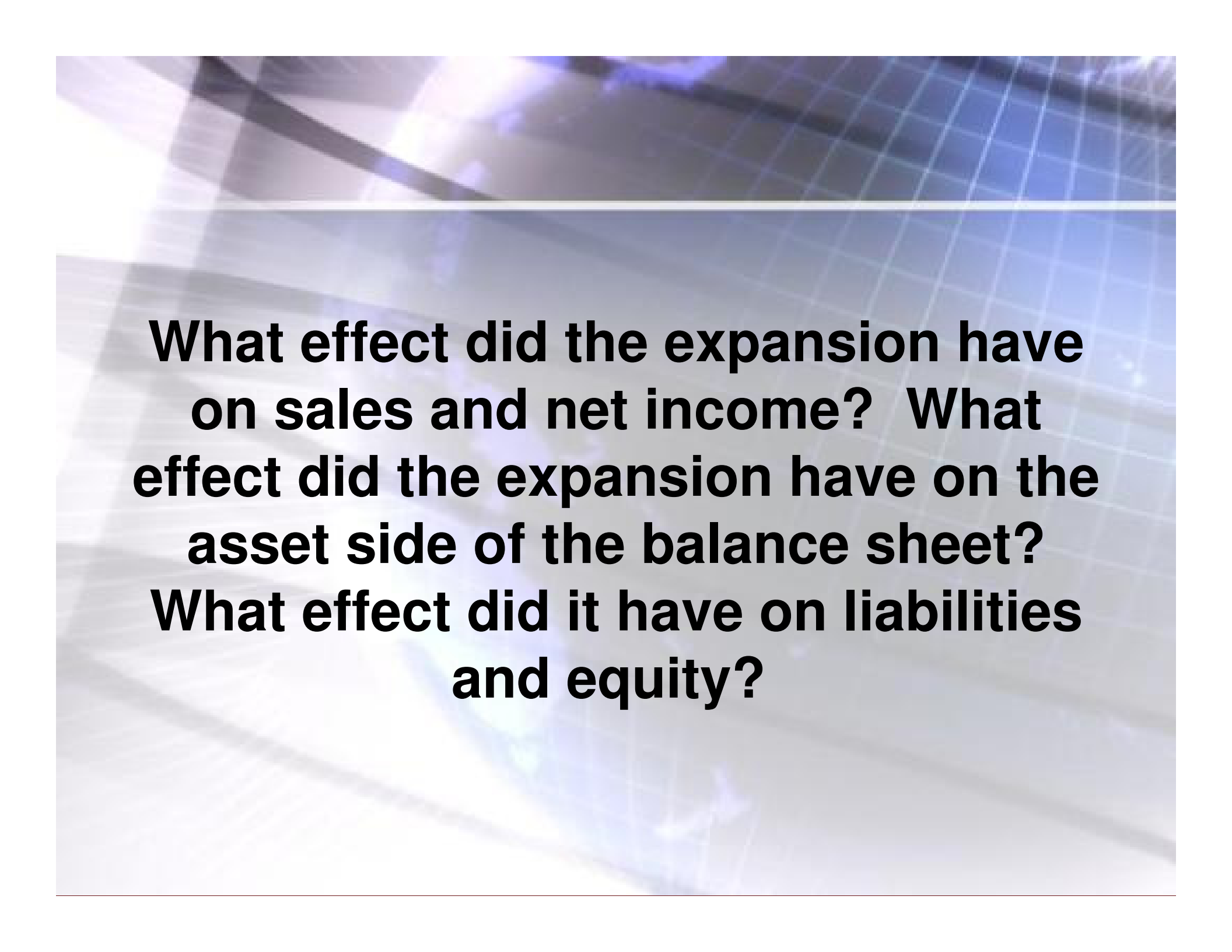
change in short term investments	\$28,600
change in notes payable	\$520,000
change in long-term debt	\$676,568
change in common stock	\$ -
payment of cash dividends	(\$11,000)
Net cash provided by financing activities	<u>\$1,214,168</u>

Summary

Net change in cash	(\$1,718)
Cash at beginning of year	9,000
Cash at end of year	<u><u>\$7,282</u></u>



Assume you are her assistant
and answer the following
questions:



What effect did the expansion have on sales and net income? What effect did the expansion have on the asset side of the balance sheet? What effect did it have on liabilities and equity?

Answer

	2003	2004	
Sales	\$3,432,000	\$5,834,400	=2,402,400
Cost of goods sold	2,864,000	4,980,000	
Other expenses	340,000	720,000	
Depreciation	18,900	116,960	
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Interest expense	62,500	176,000	
EBT	\$146,600	(\$158,560)	
Taxes (40%)	58,640	-63,424	
Net income	\$87,960	(\$95,136)	=183,093

<u>Assets</u>	2003	2004
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Short-term investments.	48,600	20,000
Accounts receivable	351,200	632,160
Inventories	715,200	1,287,360
total current assets	\$1,124,000	\$1,946,802
Gross fixed assets	491,000	1,202,950
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Total assets	\$1,468,800	\$2,886,592

=1,417,792

Liabilities and equity

	2003	2004	
Accounts payable	\$145,600	\$324,000	=178,400
Notes payable	200,000	720,000	=520,000
Accruals	136,000	284,960	=148,960
total current liabilities	\$481,600	\$1,328,960	
Long-term debt	323,432	1,000,000	
Common stock (100,000 shares)	460,000	460,000	
Retained earnings	203,768	97,632	
total equity	\$663,768	\$557,632	
Total liabilities and equity	\$1,468,800	\$2,886,592	

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=178,400

=520,000

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=847,360

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$$\begin{aligned}
 &= 847,360 \\
 &= 676,568 \quad + \} \\
 & \hline
 &= 1,523,928
 \end{aligned}$$

<i><u>Liabilities and equity</u></i>	2003	2004
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=106,136



**What do you conclude from the
statement of cash flows?**

Operating activities

Net income (\$95,136)

Adjustments:

noncash adjustments:

depreciation 116,960

changes in working capital:

change in accounts receivable -280,960

change in inventories -572,160

change in accounts payable 178,400

change in accruals 148,960

Net cash provided by operating activities (\$503,936)

Long-term investing activities

Cash used to acquire fixed assets (\$711,950)

Financing activities

change in short term investments \$28,600

change in notes payable \$520,000

change in long-term debt \$676,568

change in common stock \$ -

payment of cash dividends (\$11,000)

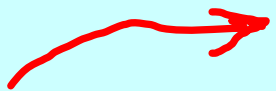
Net cash provided by financing activities \$1,214,168

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Long-term investing activities

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Operating activities

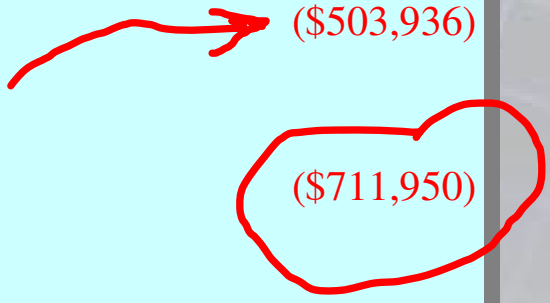
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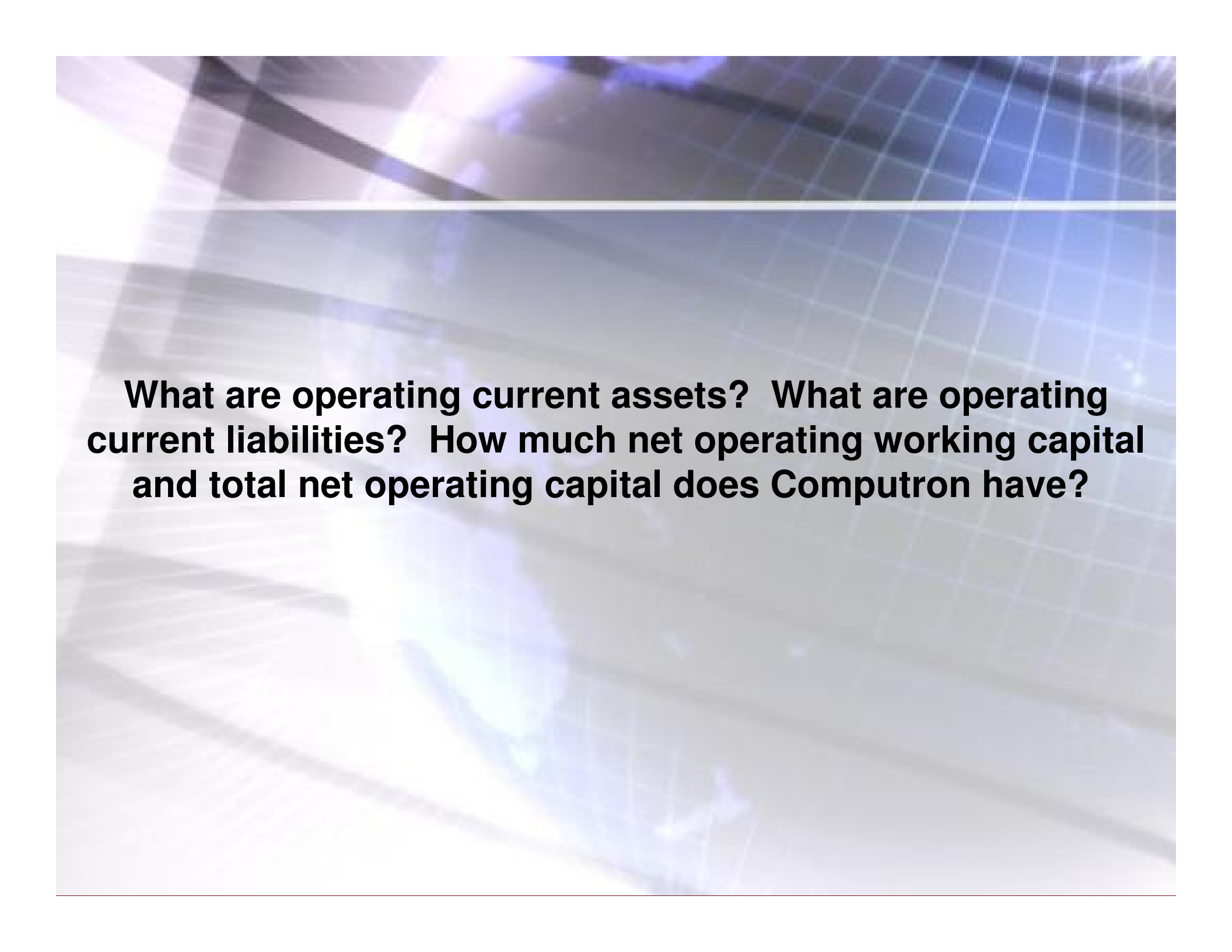




What is free cash flow? Why is it important? What are the five uses of FCF?

Answer

- FCF is the amount of cash available from operations for distribution to all investors.
- A company's value depends upon the amount of FCF it can generate.
- 1. Pay interest on debt.
- 2. Pay back principal on debt.
- 3. Pay dividends.
- 4. Buy back stock.
- 5. Buy nonoperating assets



What are operating current assets? What are operating current liabilities? How much net operating working capital and total net operating capital does Computron have?

Answer

<u>Assets</u>	2003	2004
✓ Cash	\$9,000	\$7,282
✗ Short-term investments.	48,600	20,000
✓ Accounts receivable	351,200	632,160
✓ Inventories	715,200	1,287,360
total current assets	<u>\$1,124,000</u>	<u>\$1,946,802</u>
Gross fixed assets	491,000	1,202,950
Less: accumulated depreciation	146,200	263,160
net fixed assets	<u>\$344,800</u>	<u>\$939,790</u>
Total assets	<u>\$1,468,800</u>	<u>\$2,886,592</u>

<u><i>Liabilities and equity</i></u>	2003	2004
✓ Accounts payable	\$145,600	\$324,000
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Long-term debt	323,432	1,000,000
Common stock (100,000 shares)	460,000	460,000
Retained earnings	203,768	97,632
total equity	\$663,768	\$557,632
Total liabilities and equity	\$1,468,800	\$2,886,592

$$\text{NOWC} = \text{Operating CA} - \text{Operating CL}$$

<u>Assets</u>	2003	2004	
Cash	\$9,000	\$7,282	
Short-term investments.	48,600	20,000	+
Accounts receivable	351,200	632,160	+
Inventories	715,200	1,287,360	
total current assets	\$1,124,000	\$1,946,802	1,926,802
Gross fixed assets	491,000	1,202,950	
Less: accumulated depreciation	146,200	263,160	
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Common stock (100,000 shares)	460,000	460,000
Retained earnings	203,768	97,632
total equity	\$663,768	\$557,632
Total liabilities and equity	\$1,468,800	\$2,886,592

608,960

+

NOWC= Operating CA – Operating CL

NOWC= 1,926,802 – 608,960

NOWC= 1,317,842



NOWC= 793,800



Total operating working capital = NOWC + net fixed assets

<u>Assets</u>	2003	2004
Cash	\$9,000	\$7,282
Short-term investments.	48,600	20,000
Accounts receivable	351,200	632,160
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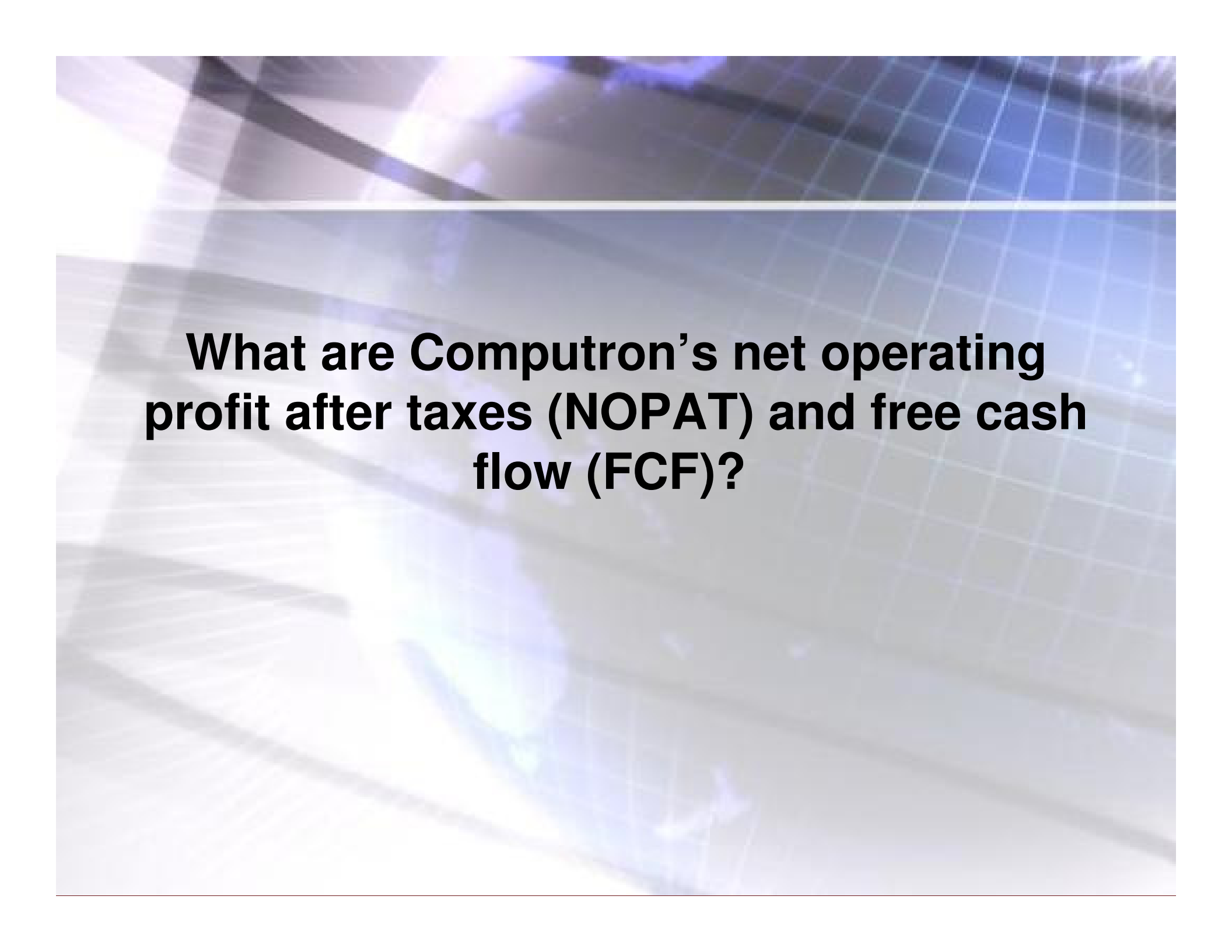
NOWC = 1,317,842 +

2,257,632

The background of the slide is a stylized image of a globe with a white grid overlay. The globe is tilted and has a blue and white color scheme. The grid lines are white and form a perspective view of a sphere.

Operating working capital in 2004 = 2,257,632

Operating working capital in 2003 = 1,138,600



What are Computron's net operating profit after taxes (NOPAT) and free cash flow (FCF)?

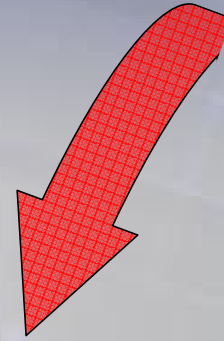
NOPAT = EBIT (1 - tax rate)

	2003	2004	
Sales	\$3,432,000	\$5,834,400	
Cost of goods sold	2,864,000	4,980,000	
Other expenses	340,000	720,000	
Depreciation	18,900	116,960	
total operating costs	<u>\$3,222,900</u>	<u>\$5,816,960</u>	
EBIT	\$209,100	\$17,440	(1-0.4)
Interest expense	62,500	176,000	
EBT	\$146,600	(\$158,560)	
Taxes (40%)	58,640	-63,424	
Net income	<u>\$87,960</u>	<u>(\$95,136)</u>	

NOPAT= 10,464

FCF = NOPAT- net investment in capital

NOPAT=10,464



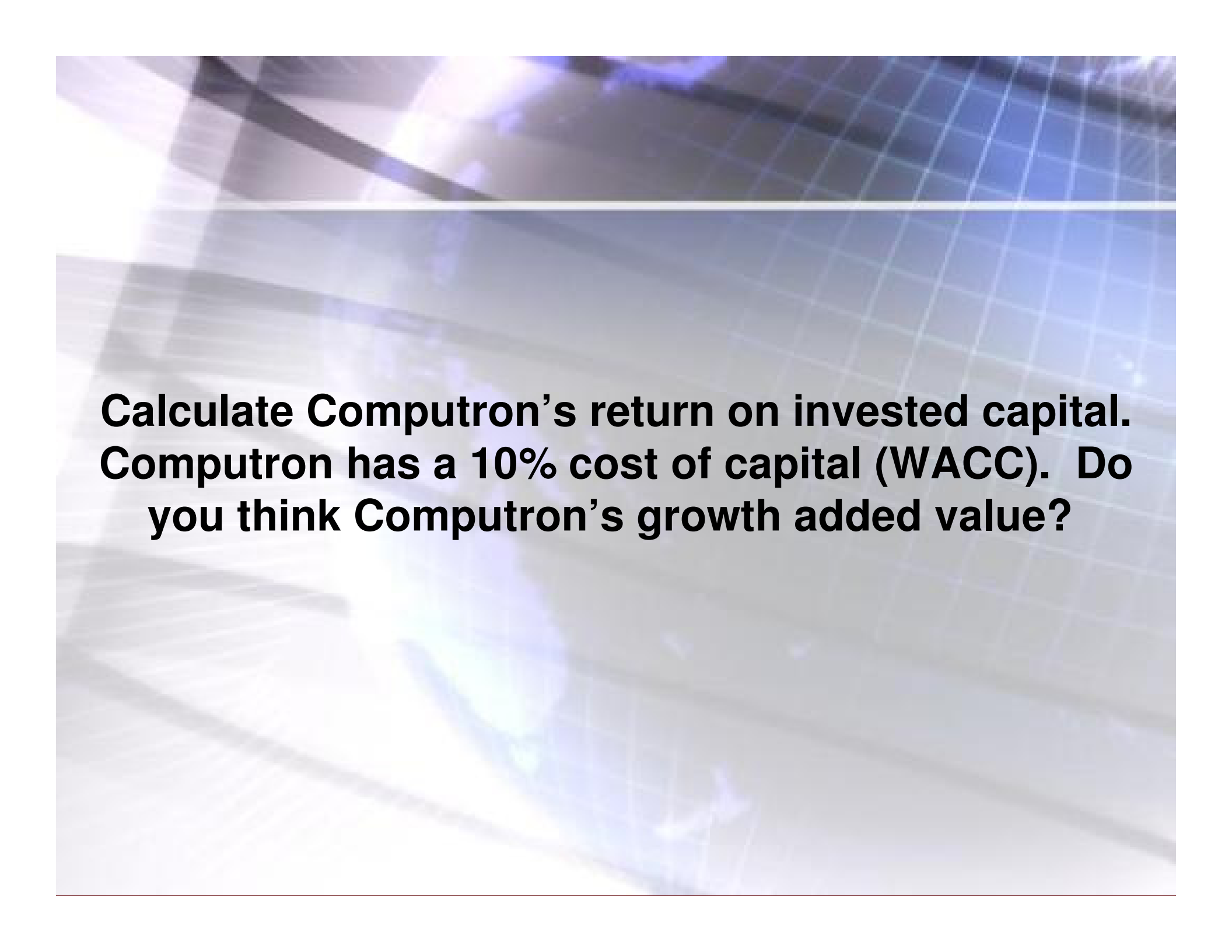
operating working capital in 2004 - operating working capital in 2003

2,257,632 – 1,138,600

=1,119,032


FCF = 10,464 – 1,119,032

= - 1,108,568



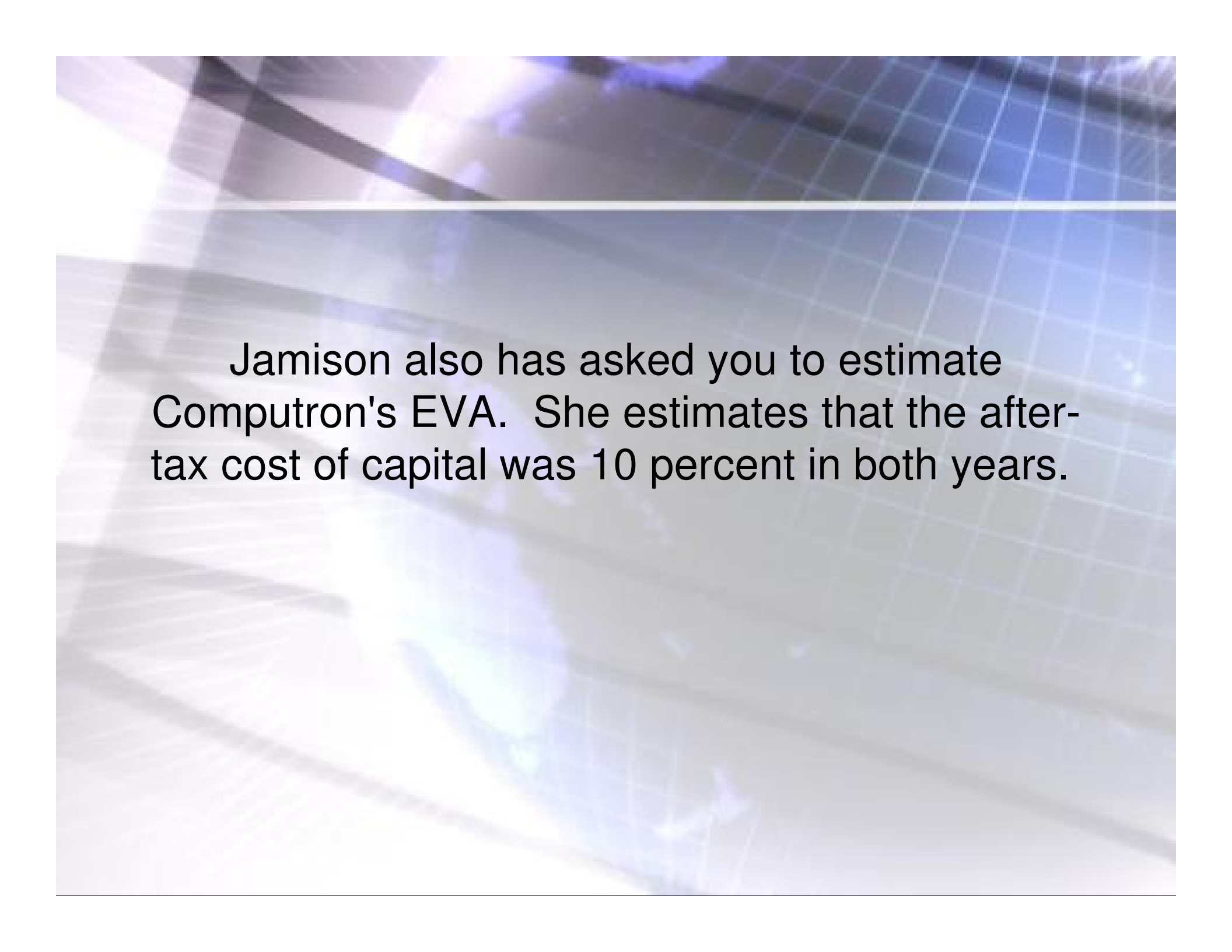
Calculate Computron's return on invested capital. Computron has a 10% cost of capital (WACC). Do you think Computron's growth added value?

$$\text{ROIC} = \frac{\text{NOPAT}}{\text{Total net operating capital}}$$

$$\text{ROIC} = \frac{10,464}{2,257,632} = 0.5\%$$


$$\text{ROIC} = 11\%$$


- The ROIC of 0.5% is less than the WACC of 10%.
- Investors did not get the return they require.
- Note: high growth usually causes negative FCF (due to investment in capital), but that's ok if $ROIC > WACC$.



Jamison also has asked you to estimate Computron's EVA. She estimates that the after-tax cost of capital was 10 percent in both years.

$$\text{EVA} = \text{NOPAT} - (\text{WACC})(\text{CAPITAL})$$

$$= \$10,464 - (0.1)(\$2,257,632)$$

$$= -\$215,299$$



$$= 11,600$$

