

1.
value:
2.00 points

Alyeska Services Company, a division of a major oil company, provides various services to the operators of the North Slope oil field in Alaska. Data concerning the most recent year appear below:

Sales	\$18,700,000
Net operating income	\$ 6,300,000
Average operating assets	\$35,200,000

Required:
1. Compute the margin for Alyeska Services Company. (Round your answer to 2 decimal places.)

Margin

%

2. Compute the turnover for Alyeska Services Company. (Round your answer to 2 decimal places.)

Turnover

3. Compute the return on investment (ROI) for Alyeska Services Company. **(Round your intermediate calculations and final answer to 2 decimal places.)**

ROI %

Hints

References

eBook & Resources

[Hint #1](#)

[Check my work](#)

2. value: 2.00 points

Juniper Design Ltd. of Manchester, England, is a company specializing in providing design services to residential developers. Last year the company had net operating income of \$490,000 on sales of \$2,000,000. The company's average operating assets for the year were \$2,200,000 and its minimum required rate of return was 14%.

Required:
Compute the company's residual income for the year.

Average operating assets	
Net operating income	
Minimum required return	
Residual income	\$ 0

Hints
References
eBook & Resources

[Hint #1](#)

3. value:
2.00 points

Management of Mittel Rhein AG of Köln, Germany, would like to reduce the amount of time between when a customer places an order and when the order is shipped. For the first quarter of operations during the current year the following data were reported:

Inspection time	0.4 days
Wait time (from order to start of production)	15.8 days
Process time	3.2 days
Move time	1.5 days
Queue time	4.1 days

Required:

1. Compute the throughput time. (Round your answer to 1 decimal place.)

Throughput time days

2. Compute the manufacturing cycle efficiency (MCE) for the quarter. (Round your percentage answer to nearest whole percent.)

Manufacturing cycle efficiency %

3. What percentage of the throughput time was spent in non-value-added activities? **(Round your percentage answer to nearest whole percent.)**

Non-value-added throughput time %

4. Compute the delivery cycle time. **(Round your intermediate calculations and final answer to 1 decimal place.)**

Delivery cycle time days

5. If by using Lean Production all queue time during production is eliminated, what will be the new MCE? **(Do not round intermediate calculations. Round your answer to 2 decimal places.)**

New manufacturing cycle efficiency

4.
value:
2.00 points

Provide the missing data in the following table for a distributor of martial arts products: **(Enter "ROI" answers to one decimal place.)**

	Division		
	Alpha	Bravo	Charlie
Sales		\$ 244,000	
Net operating income		\$ 19,520	\$ 31,185
Average operating assets	\$ 374,000		
Margin	4 %		7 %
Turnover	4.0		
Return on investment (ROI)		16.0 %	10.5 %

References

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5.
value:
2.00 points

Meiji Isetan Corp. of Japan has two regional divisions with headquarters in Osaka and Yokohama. Selected data on the two divisions follow:

	Division	
	Osaka	Yokohama
Sales	\$ 9,200,000	\$ 22,000,000
Net operating income	\$ 552,000	\$ 1,760,000
Average operating assets	\$ 2,300,000	\$ 11,000,000

Required:

1. For each division, compute the return on investment (ROI) in terms of margin and turnover.

	Osaka		Yokohama	
ROI		%		%

2. Assume that the company evaluates performance using residual income and that the minimum required rate of return for any division is 13%. Compute the residual income for each division.

	Osaka	Yokohama
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2. Assume that the company evaluates performance using residual income and that the minimum required rate of return for any division is 13%. Compute the residual income for each division.

	Osaka	Yokohama
Average operating assets		
Net operating income		
Minimum required return on average assets		
Residual income	\$ 0	\$ 0

3. Is Yokohama's greater amount of residual income an indication that it is better managed?

- ☐ Yes
☐ No

References

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Worksheet

Learning Objective: 11-01 Compute