Problem 12-23 (30 minutes)

1.

	Present	*New Line*	*Total*
(1) Sales	$10,000,000	$2,000,000	$12,000,000
(2) Net operating income	$800,000	$160,000 *	$960,000
(3) Operating assets	$4,000,000	$1,000,000	$5,000,000
(4) Margin (2) ÷ (1)	8%	8%	8%
(5) Turnover (1) ÷ (3)	2.5	2.0	2.4
(6) ROI (4) × (5)	20.0%	16.0%	19.2%

* Sales	$2,000,000
Less variable expenses (60% × $2,000,000)	1,200,000
Contribution margin	800,000
Less fixed expenses	640,000
Net operating income	$ 160,000

2. Dell Havasi will be inclined to reject the new product line, since accepting it would reduce his division's overall rate of return.

3. The new product line promises an ROI of 16%, whereas the company's overall ROI last year was only 15%. Thus, adding the new line would increase the company's overall ROI.

4. a.

	Present	*New Line*	*Total*
Operating assets	$4,000,000	$1,000,000	$5,000,000
Minimum return required	× 12%	× 12%	× 12%
Minimum net operating income	$ 480,000	$ 120,000	$ 600,000
Actual net operating income	$ 800,000	$ 160,000	$ 960,000
Minimum net operating income (above)	480,000	120,000	600,000
Residual income	$ 320,000	$ 40,000	$ 360,000

b. Under the residual income approach, Dell Havasi would be inclined to accept the new product line, since adding the line would increase the total amount of his division's residual income, as shown above.