Exercise 12-7 (15 minutes)

1. ROI computations:

$$\text{ROI} = \text{Margin} \times \text{Turnover}$$

$$= \frac{\text{Net operating income}}{\text{Sales}} \times \frac{\text{Sales}}{\text{Average operating assets}}$$

Queensland Division:

$$\text{ROI} = \frac{\$360{,}000}{\$4{,}000{,}000} \times \frac{\$4{,}000{,}000}{\$2{,}000{,}000}$$

$$= 9\% \times 2 = 18\%$$

New South Wales Division:

$$\text{ROI} = \frac{\$420{,}000}{\$7{,}000{,}000} \times \frac{\$7{,}000{,}000}{\$2{,}000{,}000}$$

$$= 6\% \times 3.5 = 21\%$$

2. The manager of the New South Wales Division seems to be doing the better job. Although her margin is three percentage points lower than the margin of the Queensland Division, her turnover is higher (a turnover of 3.5, as compared to a turnover of two for the Queensland Division). The greater turnover more than offsets the lower margin, resulting in a 21% ROI, as compared to an 18% ROI for the other division.

   Notice that if you look at margin alone, then the Queensland Division appears to be the stronger division. This fact underscores the importance of looking at turnover as well as at margin in evaluating performance in an investment center.