Answers to Homework 2:

(a)

The Pulp Division has idle capacity, so transfers from the Pulp Division to the Carton Division do not cut into normal sales of pulp to outsiders. In this case, the minimum price as far as the Carton Division is concerned is the variable cost per ton of $42. The Carton Division can buy pulp from an outside supplier for $63 a ton and would be unwilling to pay more than that for pulp in an internal transfer. They should agree to a transfer and should settle on a transfer price within the range between $42 and $63.

(b)
The Pulp Division will have an increase in profits:

Selling price	$65
Variable costs.....	42
Contribution margin per ton	$23

5,000 tons × $23 per ton = $115,000 increased profits

The Carton Division will have a decrease in profits:

Inside purchase price.....	$65
Outside purchase price	63
Increased cost per ton	$2

5,000 tons × $2 per ton = $10,000 decreased profits

The company as a whole will have an increase in profits:

Increased contribution margin in the Pulp Division	$23
Decreased contribution margin in the Carton Division.....	2
Increased contribution margin per ton.....	$21

5,000 tons × $21 per ton = $105,000 increased profits

So long as the selling division has idle capacity, profits in the company as a whole will increase if internal transfers are made.

(C)

Required transfer price by Pulp Division:

$42 + $(70-42) X 3,000/5,000 = $58.8 per ton. Then, the transfer price should be possible between $58.8 and $63 per ton.