Solutions Chapter 4

Exercise 4.1
a. Total equity: $2,750,000.
b. Number of shares = $500,000/$25=20,000.
Book value: $2,750,000/20,000 = $137.50.
c. Price: ($500,000+$750,000)/20,000 = $62.50.
d. Issue price = $1,125,000/7,500 = $150.

Common stock: 7,500*$25 = + $187,500
Paid in surplus: 7,500 *$125 = + $937,500
Checking account: +$1,125,000

Exercise 4.2
a.
Equity ($)

Common stock	70,000*20	1,400,000
Paid in surplus	70,000*20*0.25	350,000
Retained earnings	2,100,000 – 1,750,000)	350,000
Total equity		**2,100,000**

b. Book value: $2,100,000/70,000 = $30.

Exercise 4.3
a. Number of shares: 1,200,000/50 = 24,000.

Profit distribution ($)

Profit		400,000
Cash dividend	24,000*2.5	60,000
Retain		40,000
Stock dividend		300,000

b.
Changes on balance sheet ($)

Common stock	+ 300,000
Paid in surplus	
Retained earnings	+ 40,000
Undistributed profit	- 400,000
Cash	- 60,000

c.
Dividend: 0.25*$1,500,000 = $375,000
Increase retained earnings = $200,000
Profit $575,000

Exercise 4.4
BB = $4/0.08 = $50.
R = $5/0.2 = $25.

Ranch must be a more risky company to invest in. So even though the dividend per share is higher for Ranch, investors are willing to pay a lower price for the share, resulting in a higher return on Ranch's shares.

Exercise 4.5

a. (5,000*200 + 540,000)/8,000 = $192.50.

b. The value of a right must be $200 - $192.50 = $7.50.

The issue price is $540,000/3,000 = $180 per share. Buying one new share gives a benefit of $192.50 - $180 = $12.50. With five rights, you can buy 3 new shares. Value per right is (3*$12.50)/5 = $7.50.

c.

Common Stock ($10 par)	$50,000 + 3,000*$10 = $80,000
Paid in surplus	$225,000 + 3,000*$170 = $735,000
Retained Earnings	$470,000
Total Owners Equity	**$1,285,000**