**9.3 You are considering an investment in the shares of Kirk's Information Inc. The company is still in its growth phase, so it won’t pay dividends for the next few years. Kirk’s accountant has determined that their first year's earnings per share (EPS) is expected to be $20. The company expects a return on equity (ROE) of 25% in each of the next 5 years but in the sixth year they expect to earn 20%. In the seventh year and forever into the future, they expect to earn 15%. Also, at the end of the sixth year and every year after that, they expect to pay dividends at a rate of 70% of earnings, retaining the other 30% in the company. Kirk's uses a discount rate of 15%.**

**A. Fill in the missing items in the following table:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Year | EPS | ROE | Expected Dividend (end of year) | Present Value Of Dividend  (at time 0) |
| 0 | n/a | n/a | n/a | n/a |
| 1 | 20 | 25% | 0 | 0 |
| 2 | 25 = 1.25 x 20 | 25% | 0 | 0 |
| 3 | ? | 25% | 0 | 0 |
| 4 | ? | 25% | 0 | 0 |
| 5 | ? | 25% | 0 | 0 |
| 6 | ? | 20% | ? | ? |
| 7 | ? | 15% | ? | ? |
| 8 | ? | 15% | ? | ? |

**B.** What would the dividend be in year 8?

C. Calculate the value of all future dividends **at the beginning of** year 8. (Hint: P7 depends on D8.)

D. What is the present value of P7 at the beginning of year 1?

E. What is the value of the company now, at time 0?