**P8-5.** ﻿Yukon Bike Corp. manufactures mountain bikes and distributes them through retail outlets in Canada, Montana, Idaho, Oregon, and Washington. Yukon Bike Corp. declared the following annual dividends over a six-year period ending December 31 of each year: Year 1, $28,000; Year 2, $44,000; Year 3, $48,000; Year 4, $60,000; Year 5, $76,000; and Year 6, $140,000. During the entire period, the outstanding stock of the company was composed of 40,000 shares of 2% preferred stock, $65 par, and 50,000 shares of common stock, $1 par.

1. Determine the total dividends and the per-share dividends declared on each class of stock for each of the six years. Assume that preferred dividends are paid before any common dividends. Summarize the data in tabular form, using the following column headings:

**Yukon Bike Corp.**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Year** | **Total**  **Dividends** | **Preferred Dividends** | | **Common Dividends** | |
| **Total** | **Per Share** | **Total** | **Per Share** |
| Year 1 | $ 28,000 | **28000** | **0.7** | **0** | **0** |
| Year 2 | 44,000 | **44000** | **1.1** | **0** | **0** |
| Year 3 | 48,000 | **48000** | **1.2** | **0** | **0** |
| Year 4 | 60,000 | **52000** | **1.3** | **8000** | **0.16** |
| Year 5 | 76,000 | **52000** | **1.3** | **24000** | **0.48** |
| Year 6 | 140,000 | **52000** | **1.3** | **88000** | **1.76** |

﻿2. Calculate the average annual dividend per share for each class of stock for the six-year period.

**Solution:** Total Preferred stock dividends for the six years is equal to $ 276000.

So the average preferred stock dividends will be = 276000/6

= $ 46000

Total common stock dividends for six years is equal to $ 120,000.

So the average common stock dividend will be= 120000/6

= $ 20000

3. Assuming that the preferred stock was sold at $57.50 and common stock was sold at $5.00 at the beginning of the six-year period, calculate the average annual percentage return on initial shareholders’ investment, based on the average annual dividend per share (a) for preferred stock and (b) for common stock.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Year** | **Total** | **Preferred Dividends** | | **Common Dividends** | |
| **Dividends** | **Total** | **Per Share** | **Total** | **Per Share** |
| Year 1 | $28,000 | **28000** | **0.7** | **0** | **0** |
| Year 2 | 44,000 | **44000** | **1.1** | **0** | **0** |
| Year 3 | 48,000 | **45600** | **1.14** | **2400** | **0.048** |
| Year 4 | 60,000 | **45600** | **1.14** | **14400** | **0.288** |
| Year 5 | 76,000 | **45600** | **1.14** | **30400** | **0.608** |
| Year 6 | 140,000 | **45600** | **1.14** | **94400** | **1.888** |
| **Total Dividends** |  | **254400** |  | **141600** |  |
| **Average Dividends** |  | **42400** |  | **23600** |  |