Robert’s Corporation recently paid a dividend of $3.00 a share. Because of changes in government regulations, Robert’s will be forced out of business in four years at which time, in addition to its regular dividend, the corporation will pay a liquidating dividend of $45 a share. If dividends are expected to grow at an annual rate of 13 percent and the required rate of return is 15 percent, what is the current value of a share of Robert’s corporation common stock?

\[
D_1 = $3.00(1.13) = $3.39 \\
D_2 = $3.00(1.13)^2 = $3.8307 \\
D_3 = $3.00(1.13)^3 = $4.328691 \\
D_4 = $3.00(1.13)^4 = $4.89142083
\]

\[
P_0 = \frac{$3.39}{1.15} + \frac{$3.8307}{(1.15)^2} + \frac{$4.328691}{(1.15)^3} + \frac{$4.89142083 + $45}{(1.15)^4}
\]

\[
P_0 = $37.22
\]
Now suppose Robert’s Corporation expects to stay in business indefinitely (and not make the liquidating dividend in four years). If the last dividend paid was $3.00 a share, growth is expected to remain constant at 13 percent, and the required rate of return is 15 percent, what is the current value of a share of Robert’s Corporation common stock?

\[ P_0 = \frac{\$3.00(1.13)}{0.15 - 0.13} = \$169.50 \]
SafeFoods Corporation plans to initiate a dividend in three years. The initial dividend will be $0.06 a share and is expected to grow at a constant rate of 4 percent. The required rate of return is 7.5 percent. What is the current value of SafeFoods common stock?

\[ P_2 = \frac{\$0.06}{0.075 - 0.04} = \$1.71 \]

\[ P_0 = \frac{P_2}{(1.075)^2} = \frac{\$1.71}{(1.075)^2} = \$1.48 \]
Xos Inc., plans to pay a dividend of $1.24 per share. The dividend will grow at an annual rate of 14 percent over the next 12 years. At the end of the twelfth year, the growth rate will drop to 6 percent indefinitely. If the required rate of return is 12 percent, what is the current value of Xos stock?

\[
P_0 = \frac{1.24}{0.12 - 0.14} \left[ 1 - \left( \frac{1.14}{1.12} \right)^{12} \right] + \frac{1.24 \times (1.14)^{11} \times (1.06)}{0.12 - 0.06} \left[ \frac{1}{(1.12)^{12}} \right]
\]

\[
P_0 = $14.67144238 + $23.76366343
\]

\[
P_0 = $38.44
\]