5. Award: 0 out of 10.00 points

Red, Incorporated, Yellow Corporation, and Blue Company each will pay a dividend of $3.15 next year. The growth rate in dividends for all three companies is 5 percent. The required return for each company's stock is 7 percent, 10 percent, and 13 percent, respectively. What is the stock price for each company? **(Do not round intermediate calculations and round your answers to 2 decimal places, e.g., 32.16.)**

Red, Incorporated	
Yellow Corporation	
Blue Company	

References

Worksheet Learning Objective: 08-01 Explain how stock prices depend on future dividends and dividend growth.

Difficulty: 1 Basic Section: 8.1 Common Stock Valuation

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Red, Incorporated	$	157.50 +/-1%
Yellow Corporation	$	63.00 +/-1%
Blue Company	$	39.38 +/-1%

Explanation:

Note: Intermediate answers are shown below as rounded, but the full answer was used to complete the calculation.

We can use the constant dividend growth model, which is:

$P_t = D_t \times (1 + g)/(R - g)$

So the price of each company's stock today is:

Red stock price = \$3.15/(.07 − .05) = \$157.50
Yellow stock price = \$3.15/(.10 − .05) = \$63.00
Blue stock price = \$3.15/(.13 − .05) = \$39.38

As the required return increases, the stock price decreases. This is a function of the time value of money: A higher discount rate decreases the present value of cash flows. It is also important to note that relatively small changes in the required return can have a dramatic impact on the stock price.