8. Award: 0 out of 10.00 points

Impossible Corporation just paid a dividend of $1.40 per share. The dividends are expected to grow at 17 percent for the next eight years and then level off to a growth rate of 5 percent indefinitely. If the required return is 12 percent, what is the price of the stock today? **(Do not round intermediate calculations and round your answer to 2 decimal places, e.g., 32.16.)**

Stock price	

References

Worksheet	Learning Objective: 08-01 Explain how stock prices depend on future dividends and dividend growth.
Difficulty: 2 Intermediate	Section: 8.1 Common Stock Valuation

Impossible Corporation just paid a dividend of $1.40 per share. The dividends are expected to grow at 17 percent for the next eight years and then level off to a growth rate of 5 percent indefinitely. If the required return is 12 percent, what is the price of the stock today? **(Do not round intermediate calculations and round your answer to 2 decimal places, e.g., 32.16.)**

Stock price	$ 43.48 +/-1%

Explanation:

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

We can use the two-stage dividend growth model for this problem, which is:

$P_0 = [D_0(1 + g_1)/(R - g_1)]\{1 - [(1 + g_1)/(1 + R)]^t\} + [(1 + g_1)/(1 + R)]^t[D_0(1 + g_2)/(R - g_2)]$
$P_0 = [\$1.40(1.17)/(.12 - .17)][1 - (1.17/1.12)^8] + [(1.17)/(1.12)]^8[\$1.40(1.05)/(.12 - .05)]$
$P_0 = \$43.48$