

Applications

I believe non-dividend stocks aren't much more than baseball cards. They are worth what you can convince someone to pay for them.

Mark Cuban, Billionaire businessman

- Based on what you learned about dividends, why are non-dividend stocks compared to baseball cards? *See margin.*
- Years ago, Home Depot had an annual dividend of \$0.90. If you owned 4,000 shares of Home Depot, how much did you receive annually in dividends? **\$3,600**
- Barnes and Noble had a \$1.00 annual dividend during 2008. If you owned 500 shares of Barnes and Noble, how much did you receive on a quarterly dividend check? **\$125**
- If you own r shares of a stock with an annual dividend of p dollars, express the amount of your quarterly dividends algebraically. $\frac{rp}{4}$
- The quarterly dividend for Tiffany, a jewelry company, was \$0.17 during the second quarter of 2008. What was the annual dividend for 2,000 shares? **\$1,360**
- Mike owned 3,000 shares of Merck Corporation and received a quarterly dividend check for \$1,140. What was the annual dividend for one share of Merck? **\$1.52**
- Jean owned x shares of a corporation and received a quarterly dividend check for y dollars. Express the annual dividend for one share algebraically. $\frac{4y}{x}$
- The Walt Disney Company paid a \$0.35 annual dividend on a day it closed at a price of \$33.86 per share.
 - What was the annual dividend for 500 shares? **\$175**
 - What was the quarterly dividend for 500 shares? **\$43.75**
 - Express the yield as a fraction. *See margin.*
 - What was the yield to the nearest tenth of a percent? **1.0%**
- You own K shares of a stock that is selling for x dollars per share. The quarterly dividend is y dollars per share.
 - Express the annual dividend for one share algebraically. $4y$
 - Express the annual dividend for all k shares algebraically. $4yk$
 - Express the yield as an algebraic fraction. $\frac{4y}{x}$
- The spreadsheet on the right can be used to compute the yield. Write the formula that can be used to compute the yield in cell C2. **$(B2/A2)*100$**
- The Black Oyster Corporation is going out of business. All of the corporate assets are being sold. The money raised will be split by the stockholders. Which stockholders, the common or preferred, receive money first? **preferred**

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Exercise 9

Remind students that they can “solve a simpler, related problem” using numbers in place of the variables if it helps them sort out what operations to use. Then they can substitute the variables back into their answer.

ANSWERS

- If a stock does not pay a dividend, you can only make money on it by selling it to someone else for more than you paid. The buyer must be convinced that it is worth what you want for it. This is much like two kids trading baseball cards—you are relying on what another person thinks your item is worth.

8c. $\frac{0.35}{33.86}$

	A	B	C
	Price per Share	Annual Dividend	Yield
1			
2	37.12	1.51	
3	44.55	1.77	
4	65.29	2.01	
5	14.35	0.48	

Name	Last Price	Dividend
3M Co	76.90	2.00
Alcoa, Inc	41.57	0.68
American Express Co	46.15	0.72
American International Group, Inc	34.91	0.80
AT&T, Inc	39.51	1.60
Bank of America Corp	33.87	2.56
Boeing Co	82.13	1.60
Caterpillar, Inc.	83.19	1.44
Chevron Corp	100.42	2.60
Citigroup, Inc.	21.60	1.28
Coca-Cola Co/The	57.44	1.52
El Du Pont de Nemours & Co	47.63	1.64
Exxon Mobil Corp	90.43	1.60

For Exercises 12–15, round answers to the nearest tenth of a percent.

- 12.** The table gives the last price and the annual dividend for 15 corporations. Compute the yield for each corporation. *See margin.*
- 13.** The Revreg Corporation pays an annual dividend of \$1.60 per share. On Friday it closed at \$44 per share with a net change of +0.35. The dividend did not change.
- What was the yield on Friday? **3.6%**
 - At what price did Revreg close on Thursday? **\$43.65**
 - What was the yield at Thursday's close? **3.7%**
 - Thursday's net change was +1.22. At what price did Revreg close on Wednesday? **\$42.43**

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Exercise 13b

Look out for students who compute Thursday's closing price incorrectly due to an incorrect interpretation of the sign of the net change.

Exercise 14b

Look out for students who compute Tuesday's closing price incorrectly due to an incorrect interpretation of the sign of the net change.

ANSWERS

12. 3M, 2.6%; Alcoa, 1.6%; Am Ex, 1.6%; AIG, 2.3%; AT&T, 4.0%; Bank of Am, 3.1%; Boeing, 1.9%; Cat, 1.7%; Chev, 2.6%; Citi, 5.9%; Coca-Cola, 2.6%; El, 3.4%; Exxon, 1.8%

13f. The dividend has not changed. The price of the stock is going up, and that increases the denominator of the yield formula, decreasing the yield. The corporation's stock is rising, and that is good news to the investor.

14f. The dividend has not changed. The price of the stock is going down, and that decreases the denominator of the yield formula, increasing the yield. The corporation's stock is falling, and that is not good news to the investor.

- If the dividend was \$1.60 on Wednesday, what was the yield at Wednesday's close? **3.8%**
 - Look at the yields for Wednesday, Thursday, and Friday. They are decreasing. Explain why this decrease is not "bad news" to the investor who owns stock in Revreg. *See margin.*
- 14.** The Zeescore Corporation pays an annual dividend of \$2 per share. On Wednesday it closed at \$61 per share with a net change of -0.85. The dividend remained at \$2 for a year.
- What was the yield on Wednesday? **3.3%**
 - At what price did Zeescore close on Tuesday? **\$61.85**
 - What was the yield on Tuesday? **3.2%**
 - Tuesday's net change was -1.96. At what price did Zeescore close on Monday? **\$63.81**
 - What was Monday's yield? **3.1%**
 - Look at the yields for Monday, Tuesday, and Wednesday. They are increasing. Explain why this increase is not "good news" to the investor who owns stock in Zeescore. *See margin.*
- 15.** Sascha owns stock in Lewis Corp and she bought a \$1,000 corporate bond. The bond pays 6.34% annual interest.
- How much will Sascha receive in annual interest? **\$63.40**
 - How much will Sascha receive in interest if she holds the bond for 14 years? **\$887.60**
 - Sascha's stock is worth \$46 per share, and it pays a \$2 annual dividend. What is the yield? **4.3%**
 - Which is higher, the yield on the stock or the interest rate on the bond? **bond**
 - How much does Lewis Corp. pay to Sascha when the bond matures? **\$1,000**
- 16.** Stock in Happy's Burger Chain was selling for \$54.24 per share, and it was paying a \$2.46 annual dividend. It underwent a 3-for-1 split.
- What was the new price of one share after the split? **\$18.08**
 - If you owned 200 shares before the split, how many shares did you own after the split? **600**
 - Following the same pattern, what was the annual dividend per share after the split? **\$0.82**