

Applications

One of the funny things about the stock market is that every time one person buys, another sells, and both think they are astute.

William O'Heather, Publisher, *Forbes* magazine

1. Why might the buyer and seller of the same stock both think that their trading price was an "astute" decision? How might those words apply to what you have learned?

Use the following information posted at the end of the trading day on April 22 to answer Exercises 2-7.

52-week High	52-week Low	Symbol	Stock	Last	Change	Sales of 100s	High	Low
151,650	107,200	BRK/A	Berkshire Hathaway Inc	127,200	-1000	4.11	128,600	127,000
120.2	66.39	FCX	Freeport-McMoRan Copper & Gold Inc	118.65	+3.51	147,540	120.06	116.64
63.69	46.64	MCD	McDonald's Corporation	58.35	-0.55	106,077	58.77	57.42
266.81	112.11	PTR	PetroChina Company Ltd	137.19	+2.16	16,266	140.92	136.09
39.63	27.51	TXN	Texas Instruments Inc	28.85	-1.74	288,012	29.64	28.38
144.04	92.18	WBK	Westpac Banking Corporation	113.62	+2.45	332.7	115.35	113.50

2. What was the difference between the 52-week high and 52-week low price for one share of PetroChina Company Ltd? $266.81 - 112.11 = 154.7$

3. What is the difference between the day's high and low prices for McDonald's Corporation? $58.77 - 57.42 = 1.35$

4. Determine the volume for each of the following stocks.

- a. Berkshire Hathaway Inc $4.11 \times 100 = 411$
- b. McDonald's Corporation $106,077 \times 100 = 10,607,700$
- c. Texas Instruments Inc $288,012 \times 100 = 28,801,200$
- d. Westpac Banking Corporation $332.7 \times 100 = 33,270$

5. Determine the closing price on April 21 for each of the following stocks.

- a. Texas Instruments Inc $X - 1.74 = 28.85 \quad X = 30.59$
- b. Freeport-McMoRan Copper & Gold Inc $X + 3.51 = 118.65 = 115.14$

6. Use the information from Exercise 5 to determine the percent of net change from April 21 to April 22 for each of the corporations listed in that question. Round answers to the nearest tenth of a percent.

7. On April 22, which stock(s) had a daily high that was approximately 50% lower than the 52-week high? PetroChina Co. Ltd. $\frac{140.92 - 266.81}{266.81} = -47\%$

8. If the April net change for Westpac Banking Corporation was -3.03, what was the closing price for that day? $113.62 - 3.03 = 110.59$

$X - 1000 = 127,200$

(6a) $\frac{28.85 - 30.59}{30.59} = -0.05688$
 $(-0.05688)(100) = -5.688\%$

(6b) $\frac{118.65 - 115.14}{115.14} = 0.03048$
 $(0.03048)(100) = 3.048\%$

9. Which of the following is a true statement? Explain your reasoning.

The 52-week high can never be higher than the day's high. *False*
 The day's high can never be higher than the 52-week high. *True*

10. At the end of the trading day on April 25, Texas Instruments Inc closed at \$28.84, which was a +5.22% net change from the previous day's close. What was the approximate close on the previous day?

$$\begin{aligned} 28.84 - x &= .0522x \\ 28.84 - x &= .0522x \\ 28.84 &= 1.0522x \\ x &= 27.41 \end{aligned}$$

11. On April 25, Berkshire Hathaway Inc closed at \$126,875 per share. One year earlier, one share closed at \$108,750. What was an approximate one-year percent change?

$$\begin{aligned} \frac{126,875 - 108,750}{108,750} &= .167 \\ &= 16.7\% \end{aligned}$$

Use the spreadsheet below to answer Exercises 12–16.

	A	B	C	D	E	F	G	H	I
1	Symbol	Stock	April 25 Last	Change	% Change	April 24 Close	Volume in 1,000s	Volume in 100s	Exact Vol
2	AAPL	Apple Inc	169.73	-0.79	4.6%	168.94	35,445	3544500	35445000
3	BBW	Build-A-Bear Workshop Inc	10.15	1.15	12.78%	9	616	61600	616000
4	CTB	Cooper Tire & Rubber Co	14.7	-1.82	11.02%	16.52	2,671	26710	2671000
5	F	Ford Motor Co	7.5	-0.9	10.7%	8.4	227,269	2272690	227269000
6	INTC	Intel Corp	22.56	-.13	-0.57%	22.69	47,604	4760400	47604000
7	MSFT	Microsoft Corp	29.83	1.97	-6.19%	31.80	145,194	14519400	145194000
8	NTGR	NETGEAR Inc	16.76	-3.37	-16.74%	20.13	8,085	808500	8085000
9	YHOO	Yahoo! Inc	26.8	-.5	-1.83%	27.3	50,523	5052300	50523000

12. Write a formula that will convert the volume given in 1,000s into a volume given in 100s. Use the left side of the equation to indicate in which cell to store the formula.

a. Intel Corp $H6 = G6 * 1000 / 100$ b. Yahoo! Inc $H9 = G9 * 1000 / 100$

$$\begin{aligned} 22.56 - x &= .0057x \\ 22.56 &= 1.0057x \\ x &= 22.69 \end{aligned}$$

13. Write a formula that will store the exact volume for each stock in column I. Use the left side of the equation to indicate in which cell to store the formula.

a. Build-A-Bear Workshop Inc $I3 = G3 * 1000$ b. NETGEAR Inc $I8 = G8 * 1000$

14. Write a formula to determine the close on April 24 for each of the following. Use the left side of the equation to indicate in which cell to store the formula.

a. NETGEAR Inc $F8 = C8 - D8$ b. Ford Motor Co $F5 = C5 - D5$

15. Write a formula to determine the percent change for each of the following. Use the left side of the equation to indicate in which cell to store the formula.

a. Apple Inc $E2 = (F2 - C2) / C2 * 100$ b. Cooper Tire & Rubber Co $E4 = (F4 - C4) / C4 * 100$

16. Write a formula to determine the net change for each. Use the left side of the equation to indicate in which cell to store the formula.

a. Microsoft Corp $D7 = C7 - F7$ b. Cooper Tire & Rubber Co $D4 = C4 - F4$