3 CHAPTER

FIBONACCI PRICE RETRACEMENTS

Fibonacci price retracements are run from a prior low-to-high swing using the ratios 0.382, 0.50, 0.618, and 0.786 (0.236 is also used in some cases if the swing is relatively long) to identify possible support levels as the market pulls back from a high. Retracements are also run from a prior high-to-low swing using these same ratios, looking for possible resistance as the market bounces from a low.

Most basic technical analysis packages will run the retracement levels for you when you choose the swing you want to run them from and select the proper Fibonacci price tool within the program you are using. If you want to understand the math, however, multiply the length of the swing (from low to high or from high to low) by the retracement ratios and then subtract the results from the high if you are running low-to-high swings, or add the results to the low when you are running high-to-low swings.

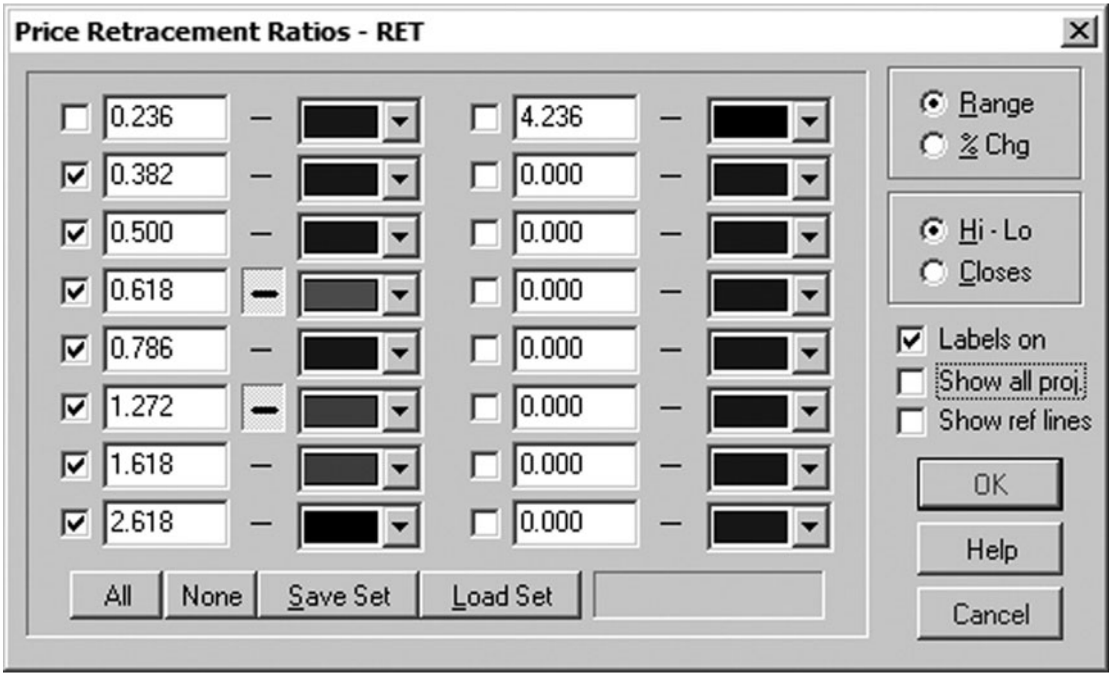

FIGURE 3-1

Figure 3-1 shows you the Price Retracement/Extension tool setup on Dynamic Trader that I have used to run the following price retracement examples. Note that I have selected in the setup box the ratios that I will be using to run both price retracements and price extensions (which will be illustrated in the next chapter). The same tool is used because both retracements and extensions are run from two points on a chart—either a high to a low or a low to a high. Since the mathematics of the program uses only these two points, we can use the same tool to run the price extensions of prior swings.

Note: All price retracements on the Dynamic Trader chart examples will be labeled as RET for retracements by the program.

Now that you have an idea of the type of Fibonacci tool you might use for your work, let's go through some retracement examples to help you understand what you might look for on a chart. Figure 3-2 is an example of the daily gold futures February 2007 contract. We ran the Fibonacci retracements from the 10/4/06 low to the 12/1/06 high, which was an 86.90-point swing, looking for potential support. Notice that this contract found support only around the 0.618 retracement of this prior swing. None of the other ratios provided any meaningful support.

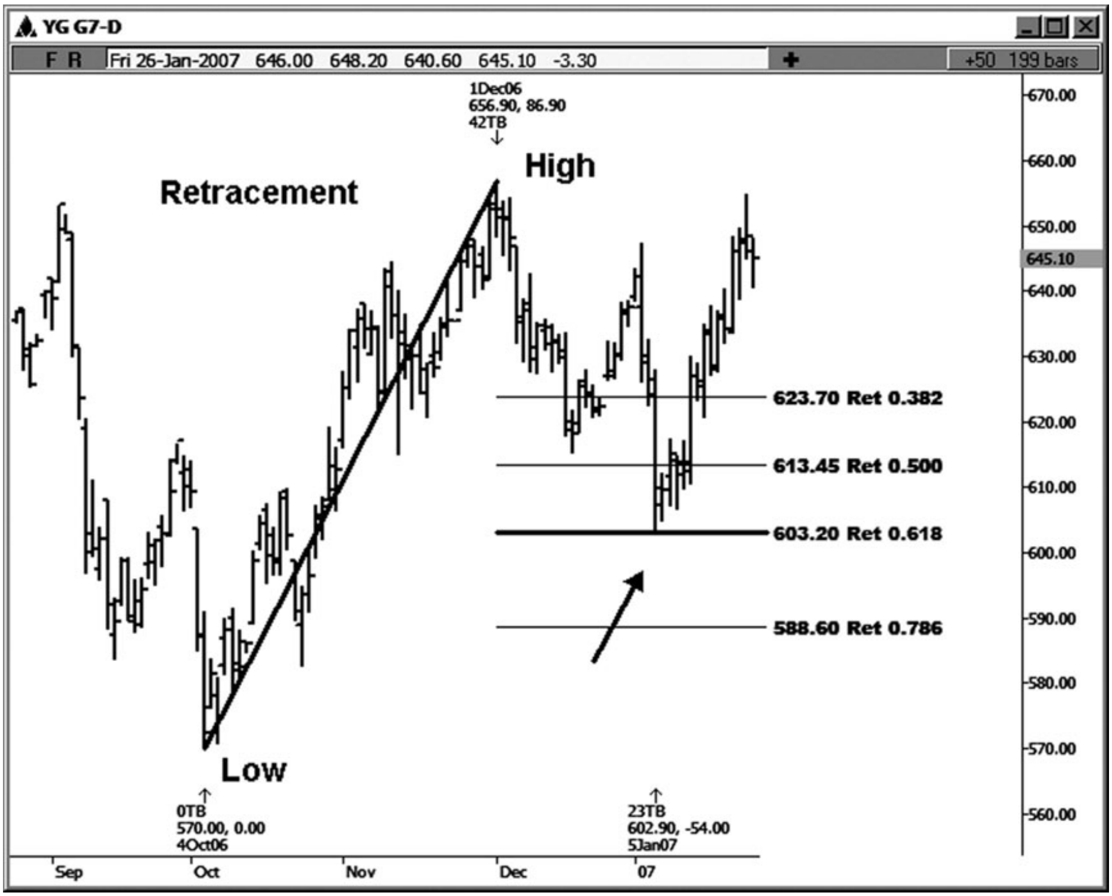

FIGURE 3-2

This next retracement example is on a FOREX chart. My experience in this business has mostly been in the futures industry, including commodities, with a focus on the financial futures markets. I have also found this type of analysis valid for cash indexes, individual stocks, and the FOREX markets. On the daily euro chart (see Figure 3-3), we ran the retracement of the 12/4/06 high to the 12/18/06 low, looking for possible resistance levels. In this case, the euro found resistance first at the 0.618 retracement and then at the 0.786 retracement of that same swing.

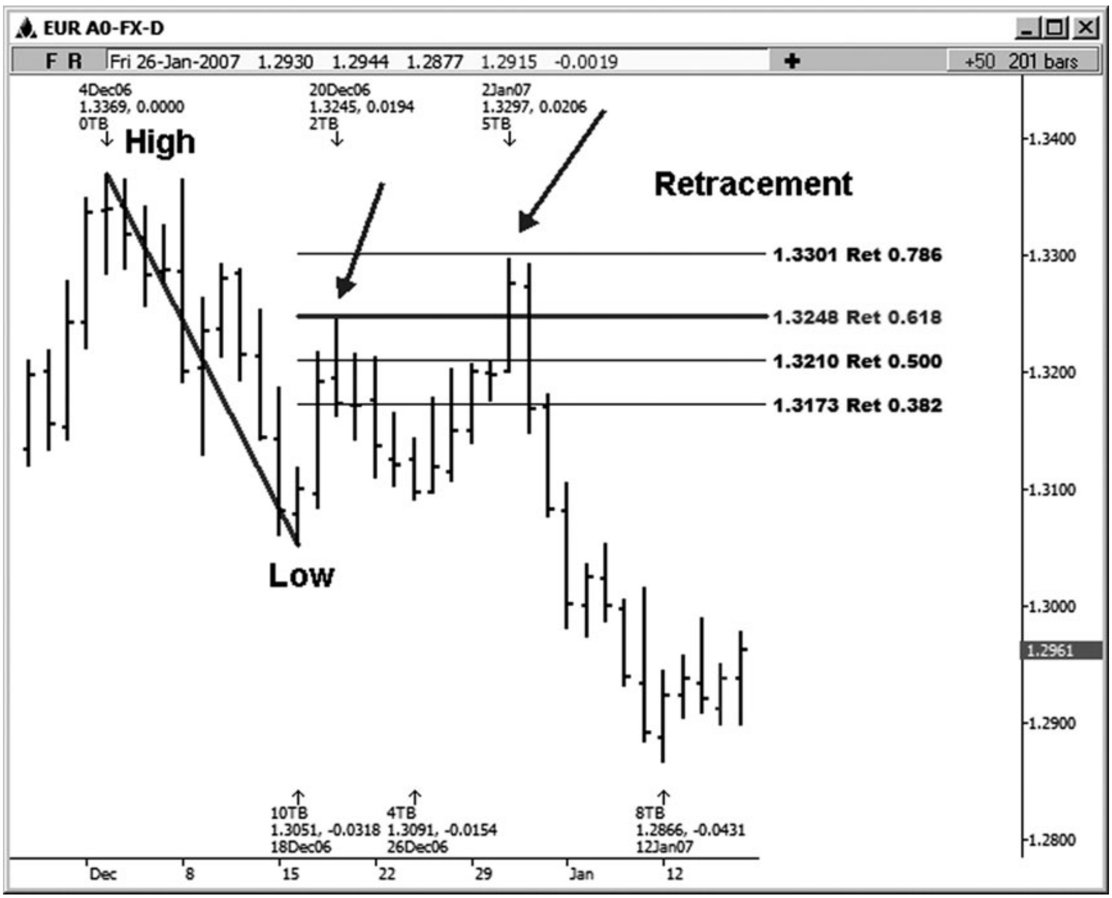

FIGURE 3-3

Our next retracement example is on a 15-minute mini-sized Dow chart (see Figure 3-4). Here the retracement was run from the high made on 1/17/2007 at 1:15 p.m. central time to the low made on 1/19/2007 at 8:45 a.m. central time. Here we were looking for possible resistance on the way back up from the 1/19 low. Notice that there are multiple swings within the larger swing that we measured for these price relationships. In later examples, we will run multiple retracements from these multiple swings. In this example, there was a minor move off the 0.382 retracement on the way up, but a much more important reversal against the 0.618 retracement level.

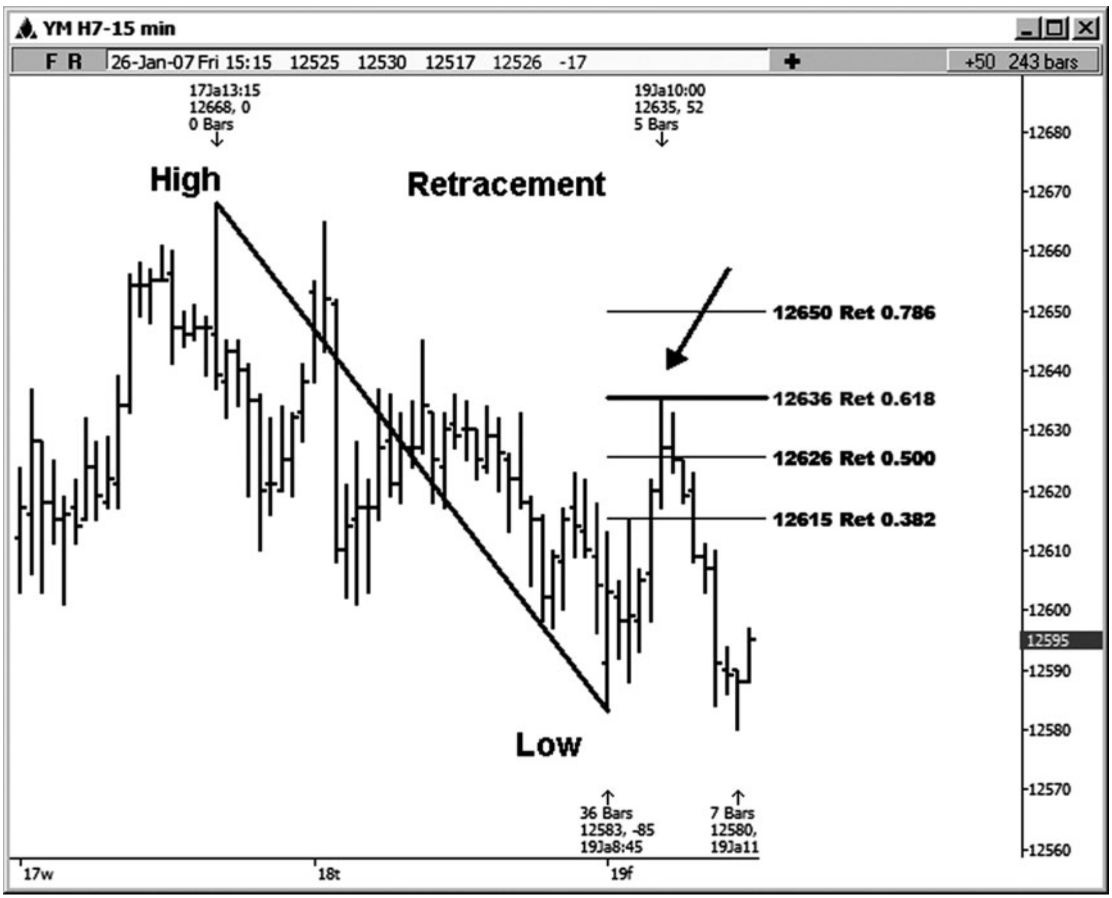

FIGURE 3-4

Figure 3-5 is another retracement example in the mini-sized Dow contract on a 45-minute chart. This is an example of a swing that is long enough (243 points) to include 0.236 in the retracement levels projected. Here we were looking for potential support. In this case, we saw a minor bounce off the 0.236 retracement, then a more healthy move off the 0.382 retracement. This example also illustrates that we will not always see perfect hits of Fibonacci levels. As long as they are relatively close, however, they are still considered valid.

Relatively close is generally 3 to 4 ticks in price above or below the actual projection level. For example, in this case, the low of 12482 made near the 0.382 retracement was 4 ticks below the actual retracement level of 12486. In some other markets, such as FOREX, I might allow a little

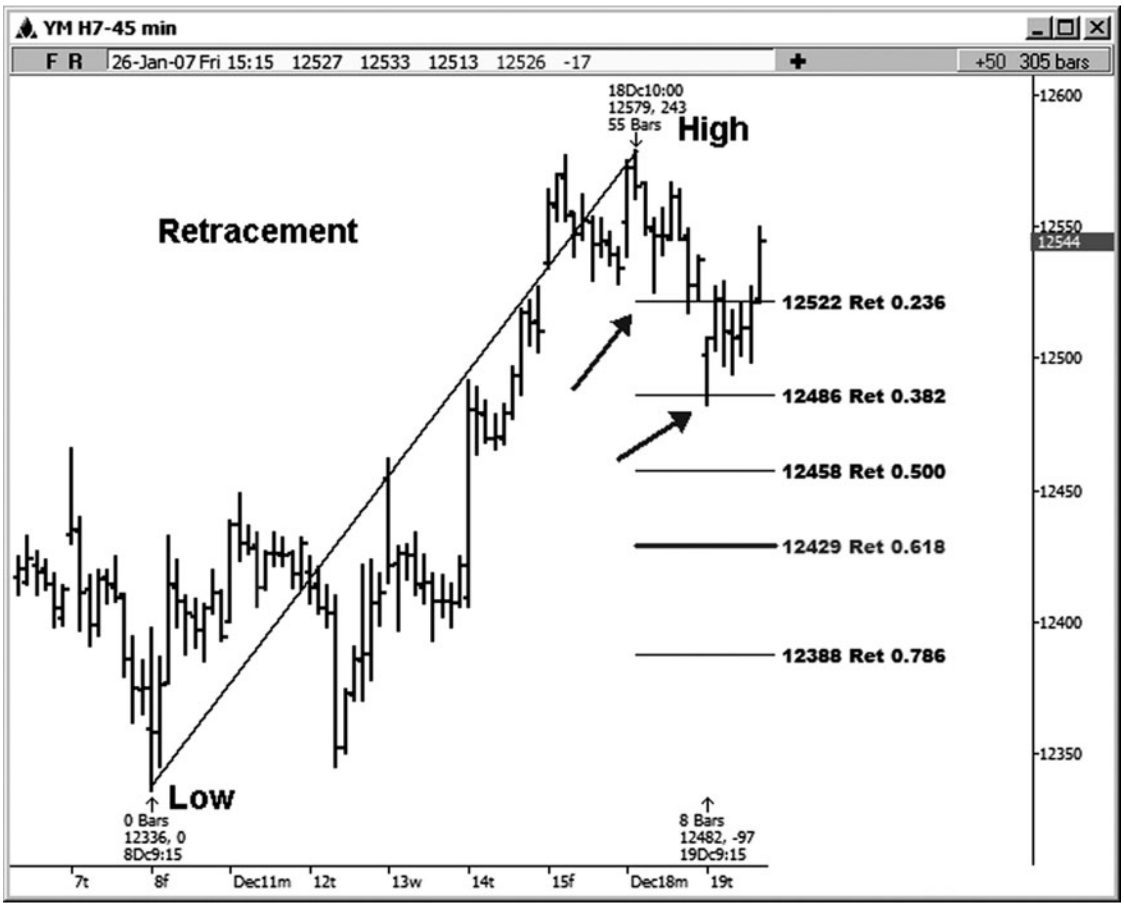

FIGURE 3-5

bit more leeway, especially if you are running the retracements from a rather large swing.

Author Tip As a rule of thumb, a good way to judge whether or not a level should still be considered valid is to just look at the chart you are analyzing. If you don't see a glaring violation or shortfall of the level, I would still consider it valuable and leave it on the chart.

This next retracement example is on a daily chart of Microsoft (see Figure 3-6). Here we retraced the move from the 11/15/04 high at 27.50 to the 3/29/05 low at 23.82 looking for possible resistance on the way back up. Note that the 0.618 retracement was the only one that produced

FIGURE 3-6

a change in trend on this chart. The high was made exactly at the retracement at 26.09. You can't always expect perfect hits using these price relationships. However, don't be surprised when it happens!

Our next retracement example is on a daily chart of Google stock (see Figure 3-7). Here we measured a swing from high to low looking for possible resistance. The retracement was from the 1/16/07 high of 513.00 to the 3/5/07 low at 437.00. A key high was made just a touch below the 0.382 retracement back to this high.

Looking more closely at this chart, you should notice that there are smaller swings within the larger swing that we measured. We can take these smaller swings and also run Fibonacci retracements that could end

FIGURE 3-7

up overlapping the price retracements from the other swings. When levels start to overlap each other this way, this confluence indicates a more important price decision.

Let's look at another daily Google chart in Figure 3-8 and see how another retracement could be run from a swing within the larger swing that was retraced on the prior chart. This time we took the move from the 2/22/07 high at 484.24 to the 3/5/07 low made at 437.00. In this case, the 0.618 retracement at 466.19 produced a turn that just happened to overlap the 0.382 retracement at 466.03 from the prior chart. The actual high was made at 465.50—close enough for government work.

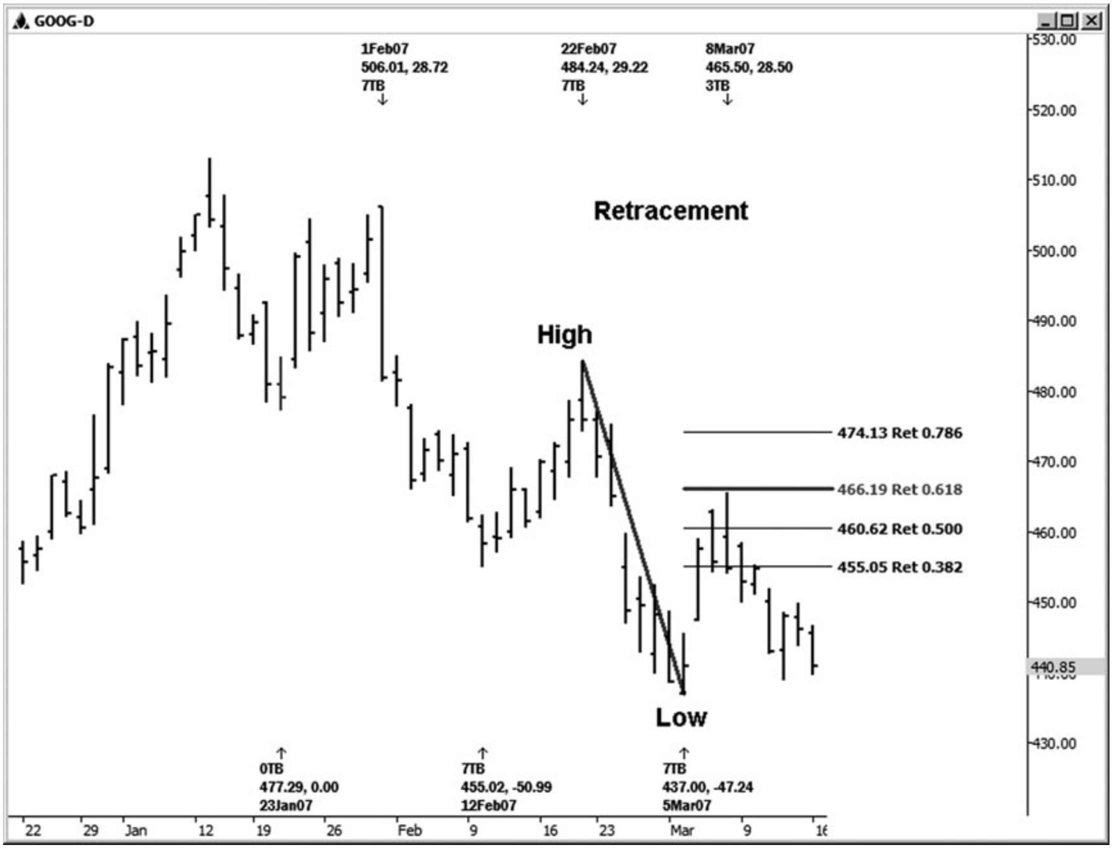

FIGURE 3-8

There were actually a couple of other price relationships that overlapped this area that you will learn about as you move forward in this book. With such a healthy confluence of price relationships that could be identified in advance, this work would have definitely warned the trader of an impending reversal to the downside from the 3/8/07 high!

Figure 3-9 is a retracement example in which we are looking at a daily FOREX chart of the British pound. Measuring from the 6/29/06 low to the 8/8/06 high looking for possible support, the only retracement that produced a change in trend was the 50 percent mark. This was not a perfect hit, but it was close enough to watch for reversal indications. Another important low was made above the 0.618 retracement. Though that was

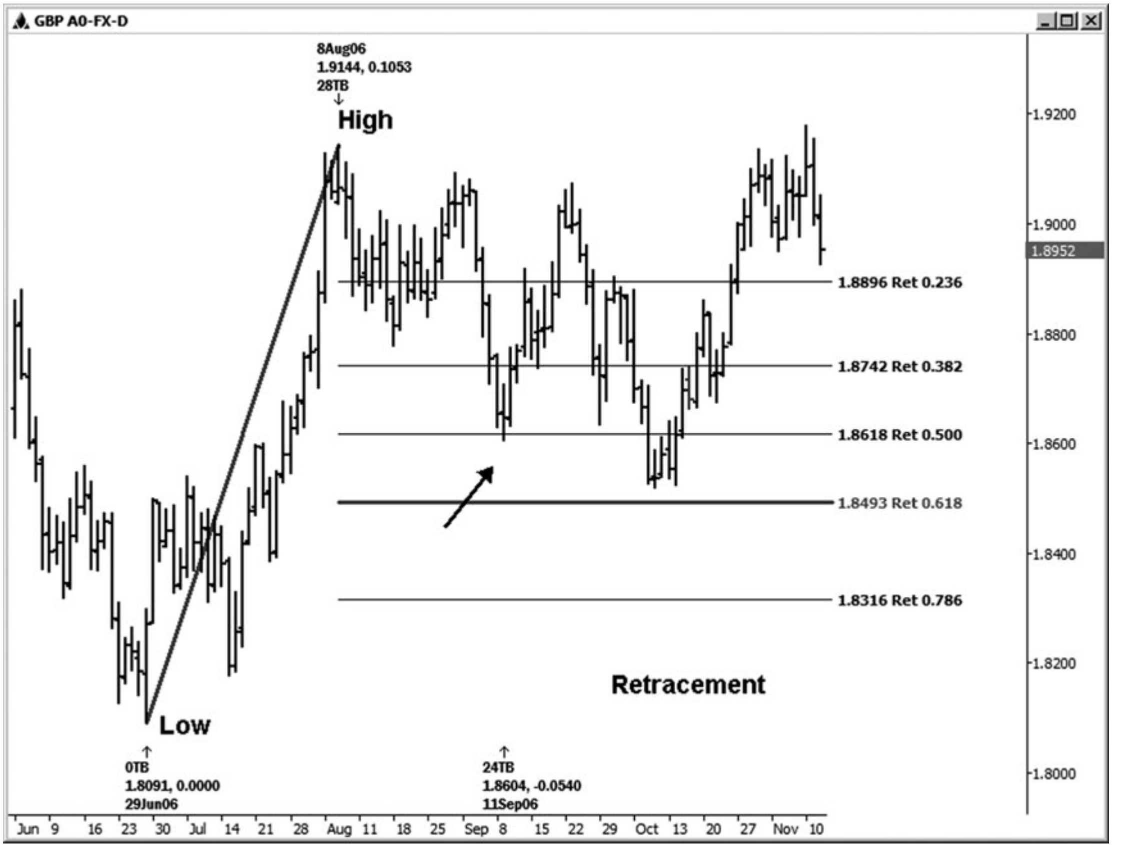

FIGURE 3-9

not really close enough to be considered a hit, it still doesn't hurt to be aware of this important retracement of a major swing.

In this next retracement example, Figure 3-10, we are looking at a General Motors daily chart and running the retracements from the 4/5/06 low to the 9/13/06 high, looking for possible support on the pullback. In this case, we saw only a minor pullback to the 0.236 retracement before the rally resumed in this stock.

FIGURE 3-10

This next retracement example is on a 15-minute E-mini Nasdaq futures chart (see Figure 3-11). We measured from the 1822.25 swing high to the 1789.00 swing low, looking for possible resistance on the way back up. On this chart, we saw only a decent reaction off the 0.618 retracement back to the high. The retracement came in at 1809.55. The actual high was made just a touch below this, at 1809.00.

FIGURE 3-11

Figure 3-12 is a daily chart for the 3M company. It shows where we retraced from the 7/25/06 low to the 9/19/06 high, looking for possible support. In this case, the stock pulled back to the 0.382 retracement, and then the rally resumed.

FIGURE 3-12

Let's look at another example of a retracement on a 15-minute chart of the E-mini Russell contract. In Figure 3-13, we measured from the 815.60 high to the 796.80 swing low to look for possible resistance on the way back up. In this case, we saw only a reaction at the 0.786 retracement. The price actually fell short of this level by 2 ticks, but that is close enough. A healthy decline followed this retracement high.

FIGURE 3-13

CORRECT RETRACEMENTS

One of the ways in which you are going to create Fibonacci price cluster setups is by running retracements on multiple swings on the chart you are analyzing. Over the years, I have watched my students make mistakes by using some of the wrong swings in their analysis. I'm hoping that the following examples will show you how to avoid the same kind of errors.

In Figure 3-14, we are looking at a daily chart of Home Depot. I have identified a number of swings that could be used for our analysis in terms of running possible support zones. When running retracements of low-to-high swings, you need to run them from the lows to the highest high on the chart. For example, in this chart, besides running them from the 10/20/06 low to the 1/3/07 high, you could also run the ratios from the higher lows to the 1/3/07 high. The other swings I would run would be from the 11/14/06 low to the 1/3/07 high, the 11/28/06 low to the 1/3/07 high, the 12/12/06 low to the 1/3/07 high, and the 12/26/06 low to the 1/3/07 high. All of these swings would have value in setting up possible

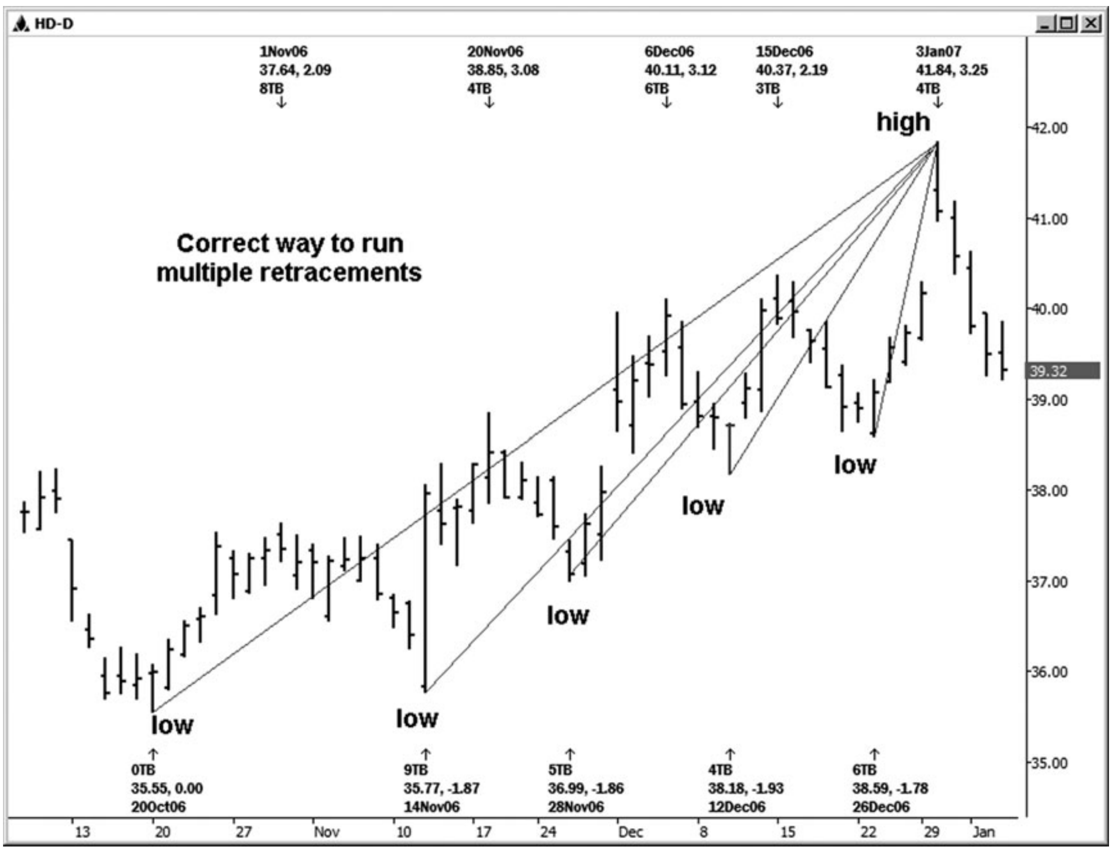

FIGURE 3-14

support as the market declined from the 1/3/07 high. When you run multiple price retracements, you will notice that some of these levels will overlap nicely. (This is what we want to see.)

INCORRECT RETRACEMENTS

In Figure 3-15, on this same chart of Home Depot, I am illustrating some of the swings that would *not* have value in defining possible support as we trade down from the 1/3/07 high. The swings illustrated may have had value for running possible support at *other* times, but they would not be relevant to the current market analysis. In other words, running a retracement from the 10/20/06 low to the 11/20/06 high would not be relevant

FIGURE 3-15

to the current market, where we are looking for support on a pullback from the 1/3/07 high. It would have been relevant when you were looking for support on a pullback from the 11/20/06 high. Once the 11/20/06 high was exceeded, however, you would have to use the new high at that time to run the possible support. Following that reasoning, using the 11/14/06 low to the 12/15/06 high or using the 11/28/06 low to the 12/15/06 high would not have been relevant to the current market analysis, although it would have been relevant before the 12/15/06 high was exceeded. I am hoping these visual examples are getting my point across.

CORRECT RETRACEMENTS HIGH TO LOW

Let's take a look at an example in the mini crude oil contract that shows the proper way to run multiple retracements for possible resistance from the 10/31/06 low. When retracing high-to-low swings, just remember to take all your highs and retrace from the lowest low, which in this case was the 10/31/06 low. You always want to use at least the distance from the highest high to the lowest low. Then, to add multiple retracements, use the distance from the lower highs to the lowest low. In Figure 3-16, you can see that all of the following swings were relevant to projecting possible resistance for the current market at that time.

7/17/06 high to 10/31/06 low
8/8/06 high to 10/31/06 low
8/25/06 high to 10/31/06 low
9/28/06 high to 10/31/06 low
10/17/06 high to 10/31/06 low

There is one more minor swing that could have been used in this case, but the high was only slightly lower than the 10/17/06 high. Since the highs are relatively close, it's almost redundant, although you can still choose to use it. Running all the retracements listed here would identify areas of possible resistance to the rally that started from the 10/31/06 swing low. If this low was violated, however, the retracements would have to be run all over again from the new lower low.

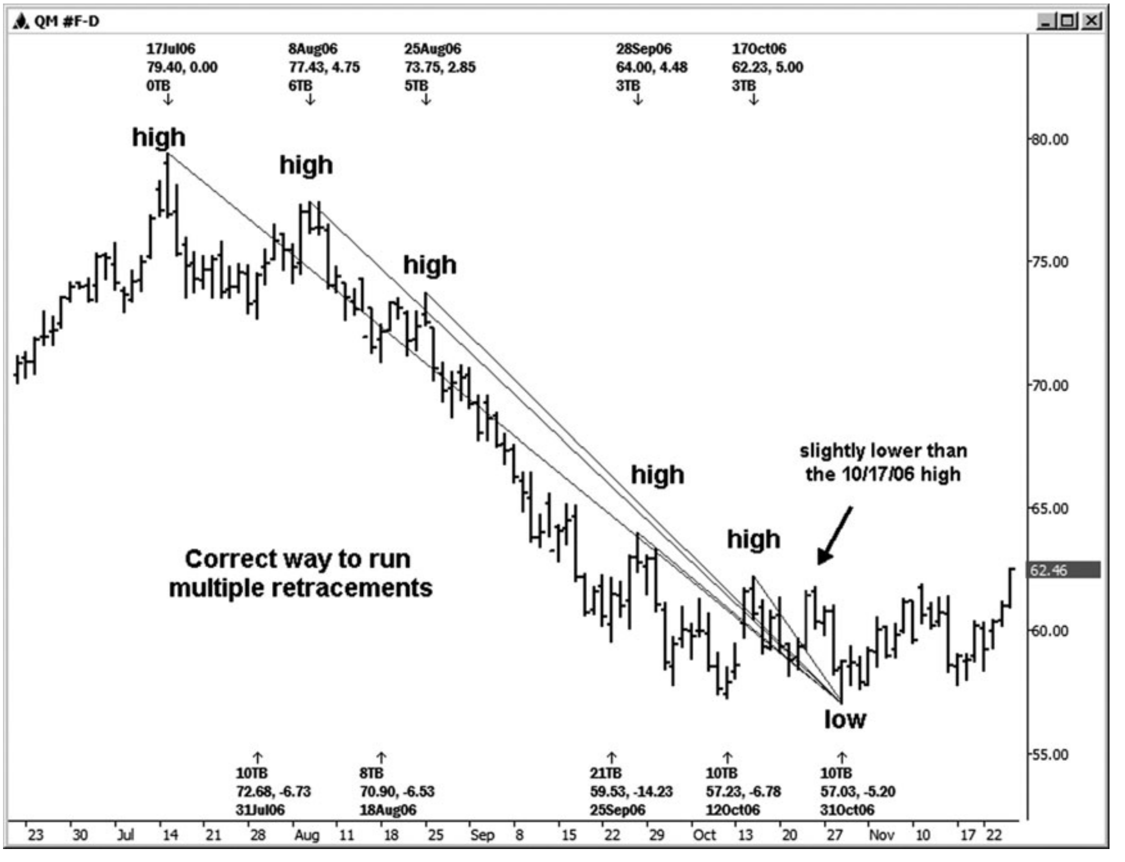
QM #F-D
17Jul06
79.40, 0.00
0TB
8Aug06
77.43, 4.75
6TB
25Aug06
73.75, 2.85
5TB
28Sep06
64.00, 4.48
3TB
17Oct06
62.23, 5.00
3TB
high
high
high
high
high
slightly lower than
the 10/17/06 high
Correct way to run
multiple retracements
low
10TB
72.68, -6.73
31Jul06
8TB
70.90, -6.53
18Aug06
21TB
59.53, -14.23
25Sep06
10TB
57.23, -6.78
12Oct06
10TB
57.03, -5.20
31Oct06
80.00
75.00
70.00
65.00
62.46
60.00
55.00
23
30
Jul
14
21
28
Aug
11
18
25
Sep
8
15
22
29
Oct
13
20
27
Nov
10
17
22

FIGURE 3-16

This second chart on the crude oil contract, Figure 3-17, illustrates some swings that would *not* have been relevant to the current market activity at that time because they were not being run from the lowest low made on 10/31/06. For example, running the retracement of the 7/17/06 high to the 9/25/06 low would have no value for the current analysis, since the 9/25/06 low had been exceeded. It would have had value when the 9/25/06 low was the lowest low, however. The other swings that would not have had value would be the 8/8/06 high to the 9/25/06 low and the 8/25/06 high to the 10/4/06 low, since the 10/31/06 low was the lowest low at the time of the analysis.

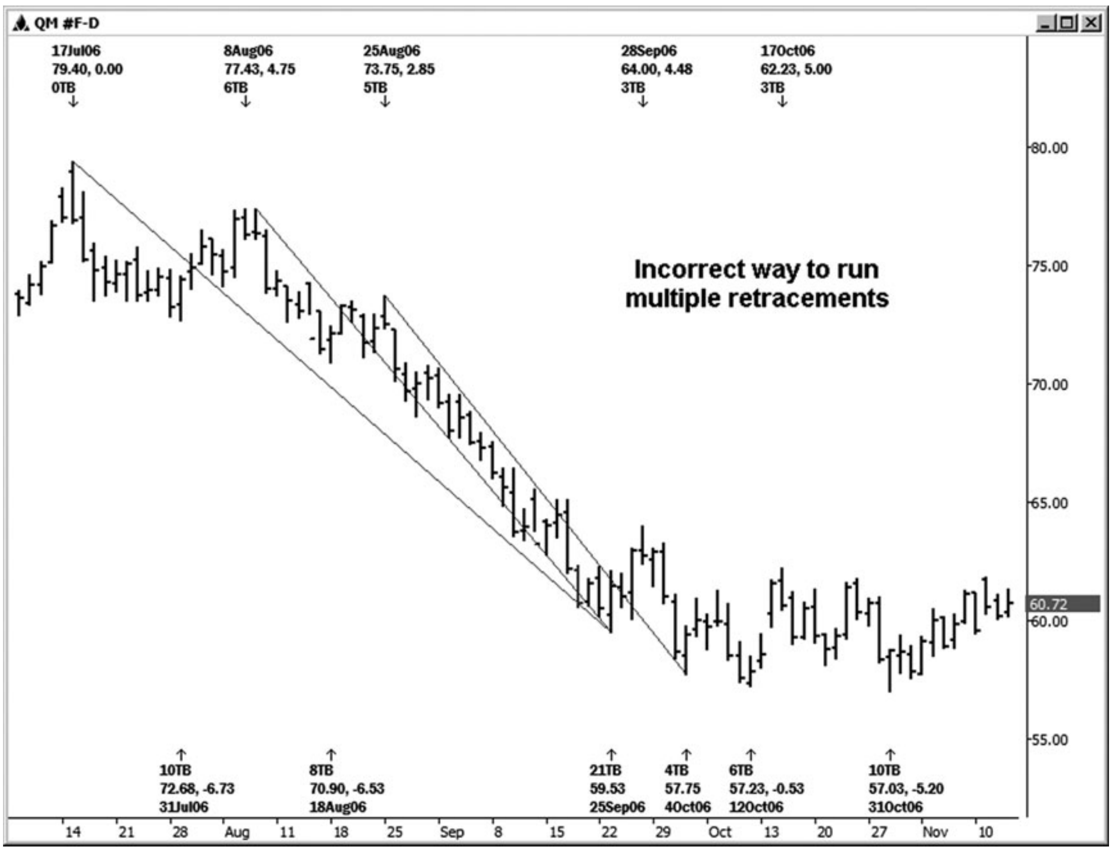

FIGURE 3-17

Before I move on to Fibonacci price extensions, I want to address a question that I am asked in almost all of my presentations. I'm always asked if old Fibonacci support levels become new resistance or if old resistance becomes new support. The answer is *no*; that is simply not part of the methodology. There are times where it will seem that this is the case, as a market will tend to pull back to a price zone after that zone is violated. The more accurate way to find new support and resistance levels, however, is to run the new levels that are created by the most recent price activity. We have to treat this market as a dynamic, living, and growing thing and continue to analyze it as such.