

**PROGRAM Calculating a Broker's Commission**

When stocks are sold or purchased through a broker, the broker's commission is often computed using a sliding scale that depends upon the value of the stocks traded. Let's say that a broker charges the amounts shown in the following table:

<i>Transaction size</i>	<i>Commission rate</i>
Under \$2,500	\$30 + 1.7%
\$2,500–\$6,250	\$56 + 0.66%
\$6,250–\$20,000	\$76 + 0.34%
\$20,000–\$50,000	\$100 + 0.22%
\$50,000–\$500,000	\$155 + 0.11%
Over \$500,000	\$255 + 0.09%

The minimum charge is \$39. Our next program asks the user to enter the amount of the trade, then displays the amount of the commission:

Enter value of trade: 30000  
Commission: \$166.00

The heart of the program is a cascaded if statement that determines which range the trade falls into.

```
broker.c  /* Calculates a broker's commission */

#include <stdio.h>

int main(void)
{
    float commission, value;

    printf("Enter value of trade: ");
    scanf("%f", &value);

    if (value < 2500.00f)
        commission = 30.00f + .017f * value;
    else if (value < 6250.00f)
        commission = 56.00f + .0066f * value;
    else if (value < 20000.00f)
        commission = 76.00f + .0034f * value;
    else if (value < 50000.00f)
        commission = 100.00f + .0022f * value;
    else if (value < 500000.00f)
        commission = 155.00f + .0011f * value;
    else
        commission = 255.00f + .0009f * value;

    if (commission < 39.00f)
        commission = 39.00f;

    printf("Commission: $%.2f\n", commission);

    return 0;
}
```