

- 5.21. Occasionally, multiplying the sizes of nested loops can give an overestimate for the Big-Oh running time. This result happens when an innermost loop is infrequently executed. Give an exact and Big-Oh analysis of the running time of the given program fragment:

```
for( int i = 1, i <= n; i++ )
    for( int j = 1; j <= i * i; j++ )
        if( j % i == 0 )
            for( int k = 0; k < j; k++ )
                sum++;
```