```
1
         The first antibiotic, penicillin, was discovered about
                                                                     11
2
    seven decades ago. It was not until the forties, however,
                                                                     23
    that it could be produced in large enough quantities to be
3
                                                                     35
    used as a drug that could cure bacterial diseases. Other
                                                                     46
4
    wonder drugs emerged, and a golden age of medicine began.
5
                                                                     58
         Before long, however, it was seen that some bacteria
6
                                                                     68
7
    could withstand these miracle drugs. Many people just do
                                                                     80
    not realize that antibiotics fight bacteria, but they do
8
                                                                     91
9
    not affect a virus. Scientists agree that these miracle
                                                                     103
    drugs have been used excessively, and too often they are
10
                                                                     114
    prescribed in error for non-bacterial diseases. The result
11
                                                                     126
    is that at least two dozen kinds of bugs have shown that
12
                                                                     138
13
    they do have a resistance to at least one of these drugs.
                                                                     149
         Many doctors believe that the bugs are winning in the
14
                                                                     160
    war between people and bacteria. Some even think that it
                                                                     172
15
    may be too late to do much about it. Many of the larger
16
                                                                     183
    drug firms appeared to be blind to the problem and cut back
17
                                                                     195
    on their research funding during the eighties. High cost
                                                                     207
18
    is a factor, of course. The total research costs to get a
                                                                     219
19
    drug to market are close to three hundred million dollars.
20
                                                                     230
         Is it too late? Big dollars are now being invested by
21
                                                                     242
22
    the pharmaceutical firms, and it is likely that newer and
                                                                     253
    different antibiotics will arrive on the market in five or
23
                                                                     265
    ten years. A promising breakthrough may be in the use of
                                                                     277
24
    peptide antibiotics; a cream for the treatment of infected
25
                                                                     288
    diabetic foot ulcers may be on the market late next year.
26
                                                                     300
    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
```