ECOO '15 R1 P1 - When You Eat Your Smarties

When I eat my Smarties I always eat the red ones last. I separate them into their color groups and I start by eating the orange ones, then blue, green, yellow, pink, violet, brown and finally red. The red ones are the best, so I eat them slowly one at a time. The other colors I eat quickly by the handful (my hand can hold a maximum of 7 Smarties). I always finish all the Smarties of one color before I move on to the next, so sometimes the last handful of a color isn't a full one.

But wait, there's more! I have turned my Smartie-eating into a science. I know it always takes me exactly 13 seconds to eat a handful of non-red Smarties and I adjust my chewing rate so that I always take 13 seconds even if my hand is not completely full. When I eat the red Smarties I like to take my time, so it takes me exactly 16 seconds to eat each one. I have a big box of Smarties. After I've finished sorting the colors, how long will it take me to eat them?

The input will contain 10 test cases. Each test case will start with N lines $(50 \leq N \leq 200)$, where each line holds the color of a single Smartie in lower case. Then the last line will read `end of box` meaning there are no more Smarties in the box for that text case.

Your program should output a single line for each test case indicating how long (in seconds) it will take me to eat the entire box according to the rules given above. Note that the sample input below only contains 1 test case, but the real data files will contain 10.

Sample Input

```
red
brown
brown
violet
blue
pink
blue
blue
pink
brown
yellow
brown
pink
violet
green
yellow
red
orange
orange
blue
brown
pink
red
red
red
brown
orange
orange
green
red
orange
violet
blue
pink
yellow
pink
brown
orange
green
red
blue
yellow
green
orange
brown
```

```
orange
pink
violet
brown
red
end of box
```

Sample Output

```
245
```

Note: Only 1 case is shown in this sample.