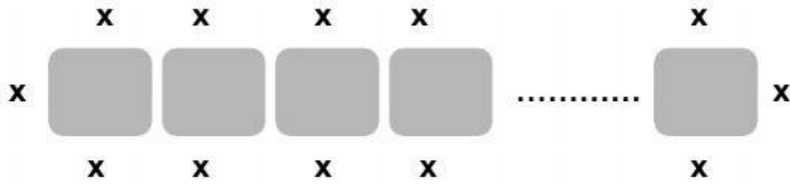*I have invited 30 people to attend my birthday party. I need to borrow some square tables that seat a person on its side. I will arrange all the tables end to end. How many tables will I need?*
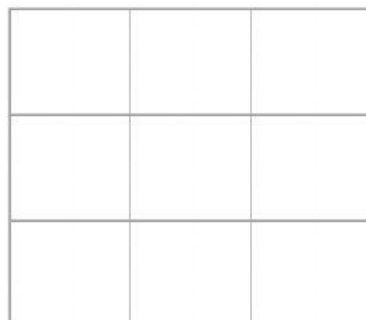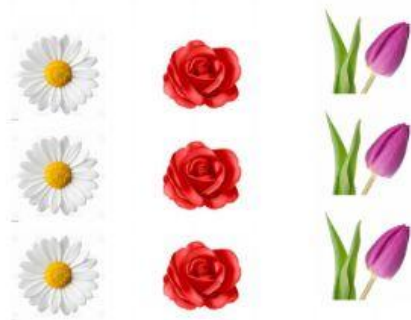
X   X   X   X   X

X ☐ ☐ ☐ ☐ .... ☐ X

X   X   X   X   X

The answer is

My next-door neighbor loves to grow things in her garden. She likes her garden neat, so she always plants in an exact square with three rows of three plants each. Each row and column has exactly one plant of each variety, and so do the center diagonals.

Draw a picture to show how the plants are organized in her garden.

She has 3 daisies, 3 roses and 3 tulips.

Show one of ways.

A fence encloses a square-shaped garden. Each side has four fence posts. How many posts are used for the garden fence?
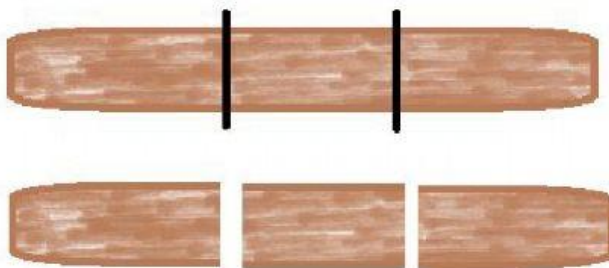

The answer is

A fireman stood on the middle step of a ladder, shooting water into a burning building. As the smoke lessened, he climbed up three steps and continued his work. The fire got worse, so he had to go down five steps. Later he climbed up the last six steps and was at the top of the ladder. How many steps were there?

The answer is

A log is cut into three pieces in 12 seconds. At the same rate, how long would it take to cut the log into four pieces?
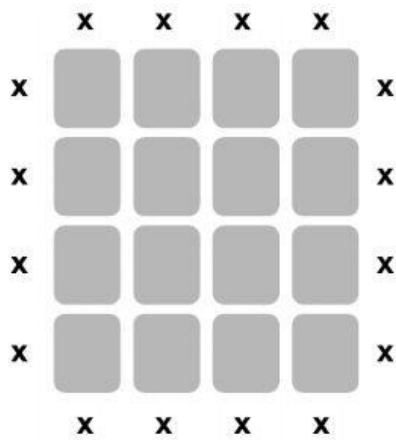

The answer is

Eight pennies are placed in a row on a tabletop. Every other coin is then replaced with a nickel. Every third coin is then replaced with a dime. Finally, every fourth coin is replaced with a quarter. What is the value of the eight coins now on the table?

1¢   5¢   10¢   25¢
Penny   Nickel   Dime   Quarter

The answer is

Paula invited 15 friends to her Sweet 16 birthday party. She decided to use 16 small square tables to form a large square so that she and her 15 friends would all have a place to sit.

At the last minute, four cousins arrived from out of town. How could Paula arrange the 16 tables into a new rectangular shape (with no holes in the middle) so that all 20 people will have a place and there will be no empty seats?

```
      x   x   x   x
  x  [ ] [ ] [ ] [ ]  x
  x  [ ] [ ] [ ] [ ]  x
  x  [ ] [ ] [ ] [ ]  x
  x  [ ] [ ] [ ] [ ]  x
      x   x   x   x
```

Show the solution