5.1

The best way to put the beads onto the square grid with least penalty is shown below.

The penalty for this method is 0.

| В | R | В | R | В |
|---|---|---|---|---|
| R | В | R | В | R |
| В | R | В | R | В |
| R | В | R | В | R |
| В | R | В | R | В |