## Bottles and Crates

## Baseboard

## Resources

You need 10 counters or coins to represent bottles which are going to be placed in a $4 \times 4$ square crate

## Puzzle 1



Instructions Using six of these bottles, place them in the $4 \times 4$ crate such that there is an even number of bottles in each row, and an even number of bottles in each column.

Puzzle 2 Is it possible to arrange the six bottles so that there is an odd number of bottles in each row, and there is an odd number of bottles in each column?

## Puzzle 3

Instructions Using ten of these bottles, place them in the $4 \times 4$ crate such that there is an even number of bottles in each row, and an even number of bottles in each column.

Puzzle 4 Is it possible to arrange the ten bottles so that there is an odd number of bottles in each row, and there is an odd number of bottles in each column?

## Puzzle 5

Instructions Is it possible to arrange six bottles in a $5 \times 3$ rectangular crate so that there is an even number of bottles in each row, and there is an even number of bottles in each column?

Puzzle 6 Is it possible to arrange the six bottles so that there is an odd number of bottles in each row, and there is an
 odd number of bottles in each column?

