



Problem of the Week

Problem A

Cupcake Caper

Mei Xing is having a party and is decorating 20 cupcakes for her friends. There is icing on all of the cupcakes, and she lines them up to add extra decorations.

- There is nothing but icing on the first cupcake. There is a cherry on the second cupcake. There are chocolate chips on the third cupcake. There are sprinkles on the fourth cupcake.
- In fact, she puts a cherry on every second cupcake.
- She also puts chocolate chips on every third cupcake.
- She also puts sprinkles on every fourth cupcake.

A) How many cupcakes have no extra decorations on them?

B) Do any of the cupcakes get all three decorations? Justify your answer.

