You're All Heart!

Problem One

The coins in my pocket add up to less than $2.
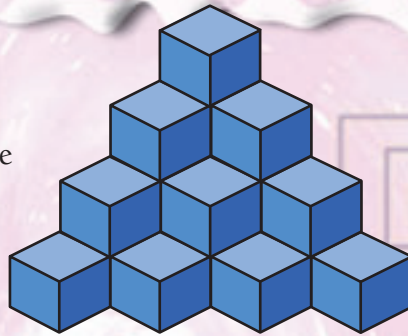If I share them equally between two people, there will be 10 cents left over.
If I share them equally between three people, there will be 10 cents left over.
If I share them equally between four people, there will be 10 cents left over.

What is the exact amount of money I have in my pocket?

Problem Two

a.　How many small cubes are there in this building?

b.　Discuss with a classmate how you worked out your answer.

Problem Three

Your heart pumps about 80 millilitres of blood each time it beats.

How much blood does your heart pump in one whole day?
(You will need to take your pulse to work out how many times your heart beats in 1 minute.)

Problem Four

Each tyre on Sam's bicycle is 225 centimetres around the circumference (the outside).

a.　Sam put a number counter on one wheel and set it to zero.

　　When he got to school, the number counter read 236. How far does he live from school?

b.　How many times would each tyre go around in 1 kilometre?