Cups and Cubes

Solve these problems. You can use cups and cubes if you want or find another way.

Problem 1

Leiana watched mushrooms grow on the lawn. Nobody picked the mushrooms. On Monday there were some mushrooms. On Tuesday there were four times as many mushrooms as on Monday. On Wednesday another eight mushrooms popped up. There were 20 mushrooms altogether.

How many mushrooms were on the lawn on Monday?

Problem 2

Matiu collected All Black cards. It all started when Uncle Cliff gave him a few cards.He got two more cards from his mate, Jack.

Then he went to Poppa's house. Poppa trebled Matiu's card collection. After that he had 27 cards.

How many cards did Uncle Cliff give him in the first place?

Problem 3

Ingrid collected cats. She loved them. It started when she bought a farm. Some cats were already there. Her friend, Kayla, shifted overseas. Getting Kayla's cats doubled the number. Then a stray cat turned up. Ingrid adopted it. Things got out of control when Ingrid saw all the homeless cats at the SPCA shelter. Taking all those stray cats multiplied her cat collection by five.

In the end Ingrid had 35 cats. How many of them came with the farm?

Problem 4

When Jonas started losing teeth he decided to keep track of how many he had. He was worried. They kept falling out. On his sixth birthday Jonas counted his teeth. By his seventh birthday he had lost three teeth over that year. By his twelfth birthday many new teeth had grown and he had twice as many as when he was seven. That made 16 teeth.

How many teeth did Jonas count on his sixth birthday?

Problem 5

Rhianna collected matchbox sports cars. She first got some for her birthday. She bought another ten cars with her pocket money. Then she tripled her collection by swapping other toys for cars. Finally she shared her collection equally with her little brother, Kevin.

If Kevin was given 24 cars, how many cars did Rhianna first get for her birthday?