## THE BARTON SERIES



By
Dr. Fayad W. Ali

## LITLE BARTON

## TABLE OF CONTENTS

I LIKE SCHOOL ..... 9
ADDING TO A FRIEND ..... 17
NO MATTER HOW ..... 35
TAKING AWAY ..... 51
THE BOTH OF US ..... 64
JINGLE MATHS ..... 77
THE HUNTERS ..... 85

## TAKING AWAY

Barton and his little friend were now meeting quite often. The little boy was very excited to show Barton his latest acquired skill in the subtraction of numbers. He mentioned to Barton, that in his first lesson, he was told that subtraction means taking away. However, he preferred to use the word subtraction as he found that it sounded very mathematical. Barton laughed with his little friend at the thought. He totally agreed, though.
"In class," the boy told Barton, "we learned to take away or subtract by using a counter and sometimes by using our fingers."


The boy looked at Barton and whispered.
"Do you know that if you think about the number in your head and count backwards, you will be able to perform the subtraction in your head?"
"That is quite true," agreed Barton.
"How did you master the method of subtraction?" questioned Barton.
"Well," said Barton's little friend, "I started off by subtracting one from a number. The answer to this would now be only one less than the number."

Barton listened as the little boy continued.
"For example," he said, "if I chose the number, eight (8) then I would say, $8-1=$ seven (7), or if I chose ten (10) then I would say $10-1=9$ (nine). All of this is even easy to do even with big numbers."

$$
\begin{aligned}
& 8-1=7 \\
& 10-1=9
\end{aligned}
$$

The little boy stood in front of Barton and made, what he considered to be, a bold statement.
"Even if you take a big number like fifty (50) and subtract one (1) from it, you only have to count one less than fifty to get forty-nine (49) as the answer," he informed Barton.


工
49
"Barton," he continued, "do you know what I did next? You'll never guess," the little boy added.

The little boy could not wait to have a response from Barton. He was far too anxious to inform Barton of what he did next. The little boy spoke before Barton could.
"Well, Barton," he said, "I took many different numbers and subtracted the number two from them. I first started with small numbers," he whispered, as though he was a little bit ashamed.
"I took small numbers like six (6) and took away two (2) to get four (4). Then I took larger numbers like twelve (12) and took away two (2) from it to get ten (10). After I practised with many of these, I took great, big numbers like fifty (50) and took away two (2) from it to get forty-eight (48).

$$
\begin{array}{r}
6-4=2 \\
12-2=10 \\
50-2=48
\end{array}
$$

"I bet you couldn't tell me what I did after?" asked the little boy of Barton.

The boy was not really expecting a correct response from his friend.

Barton thought for a bit and then replied.
"You learnt to subtract three from numbers, starting with small numbers and then moving to larger ones."

The little boy was surprised that Barton was correct and felt a little disappointed that Barton correctly knew the next step of his great work. He wanted to be the one to tell his friend of it.
"Barton," whispered the little boy, coming close to Barton's ears, "do you know that I even practise my subtraction, which is also called taking away, when I am walking around the school and going to different places?"
"Really," said Barton, "let me see if you are doing the same things that I used to do and still do?"
"Look," said the little boy, "at the number of cars in the parking lot. There are fifteen cars and four have just left. To find out how many cars remain, I think of fifteen (15), then count backwards like this, $15-1=14,14-1=13,13-1=12$ and $12-1=11$. Notice, I took away the number one (1), four times. Therefore, there are $15-4=$ eleven (11) cars remaining."


Barton agreed with the result and the two boys walked along and looked at some pigeons happily eating crumbs in the school-yard.

They counted eighteen (18) pigeons and looked on as six (6) of them appeared to have had their fill and flew away contented.

1

2

3

4

5


13

8

15

16

17

18
"Now, Barton, I start with the number eighteen (18) and count backwards, just as I had shown you before," began Barton's friend. "There are $18-6=12$ (twelve) pigeons remaining on the ground," said the boy proudly.

Barton smiled and hugged his little friend.

The little boy now shared a great secret with Barton.
"I realise that you do not always have to count backwards in ones. You can also count backwards in twos or any number, like even threes or fours," he whispered, standing close to Barton's ears.
"I used to do similar things when I was learning to subtract in my head," Barton told him.
"I use the same idea to perform bigger subtractions," said the boy, quite determined to impress Barton.
"Do you see the large field of trees at the side of our school?"

The boy did not wait for Barton's nod of agreement as he continued.
"I counted twenty-four (24) trees. There are some men who are cutting down some of the trees. Yesterday, when I passed by, they
had cut down seven (7) trees. The number of trees remaining was therefore $24-7$ and which is seventeen (17)."


Barton hugged his little friend and told him how good his subtraction work had been. However, his proud and happy little friend was not finished and he continued to question Barton.
"Do you know that in my class there are thirty-two students and fourteen of them go home for lunch? Guess how many remain in school, Barton?"
"Eighteen (18)," said Barton with hardly a thought.

## 32 <br> $\square$ <br> 14$\square$ 18

"That is correct," said the little boy, though Barton's quick and correct answer to the subtraction no longer surprised him.

He was most happy to talk with Barton about subtraction. As the bell rang to announce the start of school for the afternoon period, the two little friends parted their ways, without even saying anything to each other. It was understood in their parting that they expected to meet each other again very soon, and both boys looked forward to their next meeting.

| NEW WORD | MEANING |
| :--- | :--- |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

ACTIVITY PAGE
Barton had 12 doughnuts. After eating three of his doughnuts, how many does Barton have left?

