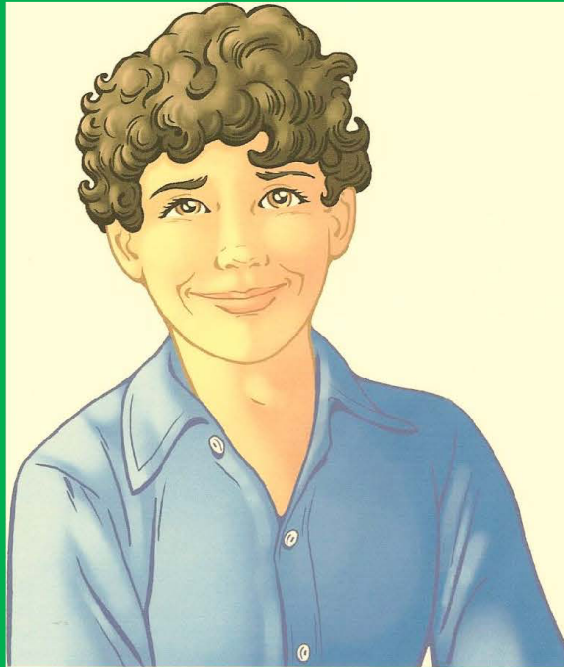


THE BARTON SERIES

# WALKING WITH BARTON



BY

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(Ages 8 and over)

# WALKING WITH BARTON

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# The Newspaper

Barton loved to read, and so Mom and Dad often bought for him wonderful and interesting storybooks. Barton would spend about half an hour each day engaged in reading.

Sometimes, the generous boy would even lend these books to his friends at school. Barton had a collection of at least three dozen books so far and which he kept on the shelves of the family library.



On evenings, young Barton would listen to the news along with the rest of the family. The news started at 7.00 pm and ended three-quarters of an hour later, at **7:45 pm**.

Barton A. Sandiford was a good sportsman and also a keen sporting fan. He liked to follow the performances of his favourite teams, especially in soccer

and cricket and to keep up-to-date with the results of many other sporting events as well.

The young boy would clip out articles from the newspapers which involved his favourite players and he would paste these clippings in a scrapbook. Barton had already completely filled three scrapbooks on sports and was working on his **fourth**.



At the Sandiford home, the daily newspaper was not bought regularly. It was sometimes a bit inconvenient to obtain one each day.

However, an offer had been recently received in the mail inviting the purchase of a newspaper subscription. The offer indicated that the newspaper would be delivered directly to the customer's home.

Dad and Mom thought that the offer sounded quite good. They were especially happy for the convenience of having a daily newspaper being dropped off at their doorstep.

The family would be able to read and be kept abreast with all the current affairs, both locally and internationally.

They would not miss out on the latest news and important developments on any day, with a daily newspaper subscription.



Barton was also very fond of the comics section in the newspaper. He realised that with a subscription he would be able to follow the daily activities of his favourite characters.

Dad requested that Barton should carefully examine the offer and calculate the cost of the newspaper delivery, both on a weekly basis, as well as for every month.

Barton found that the cost of a daily newspaper was \$1.25, except that on Sundays. The Sunday newspaper cost \$2.00. This amounted to **\$9.50** per week if one was to be purchased each day of the week.

If, for simplicity, one was to consider a month as having four weeks, then the cost would be **\$38.00** per month.

But Barton recalled that almost all the months of the year have more days than four weeks, which total only **28** days. In fact, the only month that has the same number of days as four weeks is the month of **February**. Even so, this month has **29** days in every **fourth** year, with such a year being called a **leap** year. All the other eleven months have either **30** or **31** days.

This is because the Earth revolves around the Sun every  $365 \frac{1}{4}$  days. The 365 days are already divided into 12 months. However, after every four years, there is an extra day ( $\frac{1}{4} \times 4 = 1$ ) and which is added to the month of February.

Barton began to think about the maximum amount of money that a monthly subscription could cost. He concluded that the most number of Sundays that can occur in any month is 5 and the least number of Sundays is 4.

So, thought Barton, if he were to choose a month with the most number of days, which is 31 days, and if this month were to have the maximum number of Sundays, which is 5, then the month would have 26 days from Monday to Friday and including Saturdays.

Barton calculated that the most amount of money that would be spent on the purchase of the newspaper for any month of the year would be:

$$\$2.00 \times 5 = \$10.00$$

+

$$\$1.25 \times 26 = \$32.50$$

$$\text{Total} = \$42.50$$

The mail offer indicated that for the delivery, there would be a flat rate of \$10 per month. So, the maximum possible total for the newspaper subscription would, therefore, be \$52.50 per month.

Dad examined the calculations done by Barton and found them to be quite sound.

Dad smiled as a thought occurred to him and he decided to challenge Barton.

“What is the least amount of money that the monthly subscription for any month could ever be?” he asked.

Barton was quick and eager to accept the task. Within a few minutes, he came up with the figure of \$38.00.

Dad smiled proudly at his young son.

“Excellent,” he said. “your mathematics is indeed quite sound.”