

Notes: Dan's sweets

6 to 8

Solution

The cost of the two sweets Dan ate could be:

$$9p + 8p = 17p$$

$$7p + 8p = 15p$$

$$6p + 8p = 14p$$

$$9p + 4p = 13p \text{ or } 5p + 8p = 13p$$

$$9p + 3p = 12p$$

$$7p + 4p = 11p$$

$$7p + 3p = 10p \text{ or } 6p + 4p = 10p$$

$$6p + 3p = 9p \text{ or } 5p + 4p = 9p$$

$$5p + 3p = 8p$$

Notes

Work systematically.

There are 4 toffees and 3 chews, and there are 4×3 possible ways of picking one toffee and one chew.

For the numbers involved in this particular puzzle, four of the totals can be made in two different ways.

Extension

It is easy to make up similar problems. The possible ways of choosing one of m things and one of n things is $m \times n$.

Find a total of two numbers less than 10
Work systematically