

## Answer on Question #42313 – Math - Algebra

### Problem.

Calculate how much is a pint of beer and a packet of crisp

3 Pints of beer and 2 packets of crisps = £8.60

4 Pints of beer and 1 packet of crisp = £10.20

### Solution.

Let  $x$  be a price of a pint of beer and  $y$  be a price of a packet of crisps. Then we have a system of equations:

$$\begin{cases} 3x + 2y = 8.6 \\ 4x + y = 10.2 \end{cases}$$

Express  $y$  from the second equation and substitute this expression into the first equation

$$\begin{cases} y = 10.2 - 4x \\ 3x + 2(10.2 - 4x) = 8.6 \end{cases} \quad \begin{cases} y = 10.2 - 4x \\ 5x = 11.8 \end{cases} \quad \begin{cases} y = 10.2 - 4x \\ x = 2.36 \end{cases} \quad \begin{cases} x = 2.36 \\ y = 0.76 \end{cases} .$$

So, the answer is the following: a pint of beer costs £2,36 and a packet of crisps costs £0.76.