



The Classic Peep Train Problem

There are 10 Marshmallow Peeps in a box.
They want to make a Peep Train.
Each Peep is two inches long.
There is one inch between Peeps.
How long is the Peep Train?



The Peep Train problem has been around for a long time. I convinced a college class that Cat Stevens actually wrote a song about it. (Cause out on the edge of darkness, there rides the Peep Train...)

There are many, many ways to solve this problem, which makes it applicable for lower elementary to college students. For many solvers, their first answer is incorrect.

It is a great opportunity to talk about upper and lower boundaries to problems. Elementary students can wrap their heads around the idea of the greatest and least values the answer could be and use upper and lower boundaries as a tool for reasonableness.

Muck about with the distances between Peeps to shake it up!

The original problem can be modified so student thinking about problem solving and computation is revealed! Below are some possible modifications.

Keep the length of the Peeps at two inches. This is what the chicks actually measure.

For the length between the Peeps:

1. The distance between Peep 1 and Peep 2 is one inch, each additional distance increases by an inch. For example, the distance between Peep 2 and Peep 3 will be two inches. The distance between Peep 3 and Peep 4 will be three inches.
2. The distance between the Peeps is consecutive odd or even numbers.
3. The distance between the Peeps is a fraction. One-half is the easiest fraction to use. Other fractions that will pose a challenge are $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$, or $1\frac{1}{2}$ inches between each two Peeps.

4. The distance between the first two Peeps is $\frac{1}{2}$ inch. Each additional distance increases by one inch.
5. The distance between Peep 1 and Peep 2 is one inch. Each additional distance is one-half the distance of the previous distance. The distance between Peep 2 and Peep 3 will be $\frac{1}{2}$, between Peep 3 and Peep 4 will be $\frac{1}{4}$, and so on.
6. And if you really want to s t r e t c h someone's mind, the distance between the Peeps is consecutive numbers in base two or some other base!

What kind of Peep Train distance scenarios can students come up to challenge themselves and others?

