

Set 4 - Relay Problems 'B'

1. Let A be the unique digit such that $273A8$ is divisible by 12.

Pass on A .

2. You will receive A .

A right-angled triangle has legs with length $2A$ and $2A + B$. Its hypotenuse has length $3A + B$.

Pass on B .

3. You will receive B .

$$C + \frac{1}{1 + \frac{1}{B}} = B$$

Pass on C .

4. You will receive C .

A sequence is defined such that $x_{n+1} = \frac{-1}{1+x_n}$.

Let $x_1 = C$ and $x_{2006} = D$.

Write down D .