## חHMERALY

ACCESS MATHS

## חUMERACY CHALLEIIE

Three minions, Bob, Tim and Dave, shared a LOT of bananas.

There were 58 bananas in total.
For every 4 bananas Bob took, Tim took 3, and for every 3 bananas Bob took, Dave took 2.

How many bananas did Bob get?

## LEVEL

## CHIIERACY

A bat ate 330 mosquitos in four nights.
Each night she ate $\mathbf{2 5}$ more than the night before.

How many mosquitos did the bat eat on the first night?


Three minions, Bob, Tim and Dave, shared a LOT of bananas.

There were 58 bananas in total.

For every 4 bananas Bob took, Tim took 3, and for every 3 bananas Bob took, Dave took 2.

How many bananas did Bob get?

## ПUПЕЕАСY CHALLETGE LEVEL 1

Three minions, Bob, Tim and Dave, shared a LOT of bananas.

There were 58 bananas in total.

For every 4 bananas Bob took, Tim took 3, and for every 3 bananas Bob took, Dave took 2.

How many bananas did Bob get?


A bat ate 330 mosquitos in four nights. Each night she ate $\mathbf{2 5}$ more than the night before.

How many mosquitos did the bat eat on the first night?

## ПUППЕРАСY CHALLETIE LEVEL ᄅ

A bat ate 330 mosquitos in four nights. Each night she ate $\mathbf{2 5}$ more than the night before.

How many mosquitos did the bat eat on the first night?

## LEVEL 1 <br> LEVEL 2

Answer: Trial and error works or follow the logic..

For every 4 bananas Bob took, Tim took 3, and for every 3 bananas Bob took, Dave took 2

For Bob ( $3 \times 4=12$ ) so he has to take a multiple of 12 bananas

So, if Bob takes 12 bananas, Tim takes 9 and Dave takes 8.

In total this adds up to 29 bananas (half of 58)
So if bob takes 24, Time takes 18 and Dave takes 16 $=58$ in total.

Dave takes 24.

## Answer:

$330 / 4=82.5$ this gives a rough estimate around the amount of bats eaten between the $2^{\text {nd }}$ and $3^{\text {rd }}$ night.

From here students could use trial and error, eg. if it was 65 the next would be 90, 115 and 140 which totals 410 so we would need to try a lower starting number.

Using algebra we can say $x+(x+25)+(x+50)+(x+75)=330$
Therefore we have $4 x+150=330$

$$
\begin{gathered}
4 x=180 \\
x=45
\end{gathered}
$$

$45+70+95+120=330$

The starting number is $\underline{45}$

