## Introduction to Doubling \& Halving

Looking forward to seeing you all back at school on Monday. In our Friday sessions we will be looking at Doubling \& Halving numbers, so here is a bit of an introduction. Take care and see you next week.
Mr Brown
Amount of exercises performed in 30 seconds

| Name | Press-Ups | Step Ups | Squat Thrusts | Star Jumps | TOTAL |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Jess | 11 | 24 | 18 | 35 |  |
| Harrison | 13 | 25 | 20 | 36 |  |
| Elin | 10 | 26 | 21 | 32 |  |
| Riley | 13 | 27 | 17 | 36 |  |
| Izzy |  |  |  |  |  |
| Lucas |  |  |  |  |  |
| Lucia |  |  |  |  |  |
| Barney |  |  |  |  |  |

## Amount of exercises performed in 1 minute

| Name | Press-Ups | Step Ups | Squat Thrusts | Star Jumps | TOTAL |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Izzy | 20 | 50 | 42 | 68 |  |
| Lucas | 24 | 48 | 34 | 64 |  |
| Lucia | 22 | 54 | 38 | 62 |  |
| Barney | 28 | 46 | 32 | 72 |  |
| Jess |  |  |  |  |  |
| Harrison |  |  |  |  |  |
| Elin |  |  |  |  |  |
| Riley |  |  |  |  |  |

## My question to you is: which child did the best overall?

The problem is 4 children did their exercises for 30 seconds and the other 4 did them for 1 minute. So how do we compare?
(I am going to assume that the children who did 30 second exercises would have kept the same pace up if they did the full minute).

## So there are 2 ways we can compare all the children.

If we halve the scores of Izzy, Lucas, Barney \& Lucia we will get their scores if they had done 30secs like the other children.

## How do you halve a number?

Example: What is half of 46 ?
Partition the 46 into $40+6$
Half of 40 is 20 and half of 6 is 3.
$20+3=23$ so half of 46 is 23

The other way we can compare scores is to double the scores of Jess, Harrison, Elin \& Riley so we can compare them to the children who did the exercises for the full minute.

How do you double a number?
Example: What is double 42 ?
Partition the 42 into $40+2$
Double 40 is 80 and double 2 is 4 .
$80+4=84$ so double 42 is 84 .
Now fill in the rest of the $\mathbf{2}$ tables by doubling \& halving Izzy, Lucas, Barney \& Lucia's scores and doubling Jess, Harrison, Elin \& Riley's scores and then adding up all the totals. Which child performed the best overall? What was the order of the children from $1^{\text {st }}$ to $\mathbf{8}^{\text {th }}$ ?

