Dear People – please make sure you do the speed test – it will really help you in your calculations!

After that, we are going to do a little extra 'mean' calculation to consolidate what you learned last week.

- remember that finding the 'mean' is finding the 'average'. The 'average is a 'fair share'.

THE RECIPE FOR FINDING THE MEAN :

1. Add all the numbers (sets or 'items') together to find a TOTAL,

2. Divide the TOTAL by the amount of sets (or items) there are!

1 x 8 = 8
2 x 8 = 16
3 x 8 = 24
4 x 8 = 32
5 x 8 = 40
6 x 8 = 48
7 x 8 = 56
8 x 8 = 64
9 x 8 = 72
10 x 8 = 80
11 x 8 = 88
12 x 8 = 96
15 x 8 = 120
20 x 8 = 160

8 x 4 =	8 x 11 =	8 x 20 =	8 x 5 =
11 x 8 =	8 x 2 =	8 x 2 =	10 x 8 =
8 x 3 =	7 x 8 =	8 x 15 =	2 x 8 =
1 x 8	8 x 0 =	8 x 4 =	6 x 8 =
8 x 5 =	8 x 3 =	8 x 8 =	8 x 10 =
12 x 8 =	8 x 20 =	8 x 0 =	8 x 9 =
7 x 8 =	1 x 8 =	1 x 8 =	1 x 8 =
10 x 8 =	2 x 8 =	8 x 12 =	8 x 15 =
3 x 8 =	8 x 8 =	3 x 8 =	3 x 8 =
8 x 6 =	4 x 8 =	4 x 8 =	8 x 7 =
8 x 1 =	12 x 8 =	5 x 8 =	9 x 8 =
0 x 8 =	0 x 8	7 x 8 =	8 x 6 =
8 x 11 =	8 x 15 =	8 x 11 =	12 x 8 =
20 x 8 =	8 x 5 =	8 x 10 =	8 x 12 =
8 x 7 =	5 x 8 =	10 x 8 =	8 x 1 =
8 x 10 =	11 x 8 =	11 x 8 =	8 x 11 =
8 x 15 =	6 x 8 =	0 x 8 =	5 x 8 =
15 x 8 =	9 x 8 =	15 x 8 =	15 x 8 =
8 x 8 =	8 x 10 =	20 x 8 =	8 x 6 =
8 x 0 =	8 x 1 =	8 x 8 =	8 x 8 =
8 x 2 =	8 x 7 =	8 x 7 =	20 x 8 =
6 x 8 =	20 x 8 =	8 x 3 =	8 x 4 =
8 x 9 =	8 x 9 =	8 x 9 =	11 x 8 =

WARM- UP:
LI: can I improve my recall of 8x tables facts?

Print this sheet if you can.

Otherwise, get someone to call out each equation so you can write the answer.

Same deal as with the 6x tables speed test:
1. Set a timer for 2 minutes and do as much as you can
2. Check your accuracy (mark your columns!)
3. **Aim for improvement with each column you do.**

A

Find the mean for each set of data.

1. Football matches 8
   Total goals 40
   Mean goals per game?

2. Dogs 3
   Total weight 21 kg
   Mean weight per dog?

3. Restaurant tables 10
   Diners 25
   Mean diners per table?

4. Library users 12
   Books borrowed 36
   Mean books per person?

5. Swimming sessions 5
   Total lengths 100

6. Darts 3
   Total score 51

7. Dice 2
   Total score 7

8. Tests 4
   Total marks 320%

To find the mean, you have to divide how many sets have given the total.

So, **in question 1**, the **total** of goals scored in 8 football matches is 40.
To find the mean (average), you have to take the **total** of goals and divide it by the **number of matches** played to score those goals.

The sum to do is 40 (goals) divided by 8 (matches).

Answer?

In question 2, the **total** of the dogs' weight is 21kg.
To find the mean (average), you have to take the **total** of the weights and divide it by the **how many dogs** were weighed to get that total.

The sum to do is 21 (kg) divided by 3 (dogs).

Answer?

Carry on!

B

Find the mean.

1. Flights 5
   Total distance
   12 000 km

2. Cars 100
   Passengers 280

3. Boxes of apples 8
   Total apples 1000

Find the total.

4. Car journeys 12
   Mean distance
   45 miles

5. Buses 2
   Mean passengers 56·5

6. Trees 3
   Mean number of
   apples 269

Find the number of items.

7. Distance cycled (km)
   Total 257   Mean 25·7

8. Train passengers
   Total 720   Mean 180

9. Bags of apples
   Total 150   Mean 7·5

Here there's nothing you haven't already done: just bigger numbers! Remember, to find the mean, you have to divide how many sets have given the total.

So, **in question 1**, the **total** of distance flown is 12,000km, flown during 5 flights. To find the mean (average), you have to take the **total** of km and divide it by the **number of flights** flown to add them all up.

The sum to do is 12,000 (km) divided by 5 (flights).

Answer?

In question 2, the **total** amount of passengers are 280, carried by 100 cars. To find the mean (average), you have to take the **total** of the passengers and divide it by the **how many cars carried them to get that total.**

The sum to do is 280(passengers) divided by 100 (cars).

Answer?

Watch out for question 4! (you'll need to use inverse operations (ie – go backwards!)

C

Find the mean.

1. Adults 4
   Total weight 263·2 kg

2. Pages read 15
   Time 36 minutes

3. Shop customers 20
   Total takings £355

Find the total.

4. Cans 500
   Mean weight 435 g

5. Pages read 26
   Mean time 3 mins. 30 secs.

6. Customers 12
   Mean takings £4·60

Find the number of items.

7. Weight of fish
   Total 1·8 kg
   Mean 225 g

8. Time per page (minutes)
   Total 57   Mean 1·9

9. Takings per customer
   Total £2·85
   Mean 57p

EXTENSION

Be careful!