First name ____________________________

Last name ____________________________

School ________________________________

Class _________________________________

Date of birth 00 00 00 00 00

Date of test 00 00 2016

Total score □ (maximum 20)
To answer this question you will need to use all the information on the next page.

The four dancers are on the special floor.
For how many minutes do they need to dance to charge the phone?
You must show how you work it out.

Suppose the dancers could double the number of joules per second.
Then how many minutes would it take them to charge the phone?

minutes

minutes
What each dancer weighs:

50kg  
60kg  
65kg  
75kg

How many joules a dancer generates in one second

The phone:

The phone needs 12,000 joules to charge.
2. The big parcel weighs 4 times as much as the small parcel. Together they weigh 1500 grams. How much does each parcel weigh?

grams and grams

3. Sahar writes party invitations. She makes a mistake! On 11th July 2016 she will be 6 years old. How old would she be if she lived until 11th July 20016?

years old
4. Multiples of 5 have a final digit that is either 0 or 5
Gareth thinks of a multiple of 4
What could its final digit be?
Circle all the possible answers.

0 1 2 3 4 5 6 7 8 9

5. Scientists use sonar to find how deep oceans are.

Scientists send a sonar signal from the boat.
14 seconds later they hear the echo.
In water, sonar signals travel about 1500 metres every second.
How many kilometres deep is this part of the ocean?
This is a gingerbread house.

The roof of this 'house' is made from **two rectangles** of biscuit, each 20cm by 18cm.

On **each cm²** of the roof there will be 1 small sweet.

There are 75 small sweets in one pack.

How many packs are needed for the roof?

You **must** show how you work it out.

[Diagram of gingerbread house with dimensions and sweet toppers]

**packs**
Hopscotch pattern:

Some numbers are side by side.

Some numbers are on their own.

The pattern continues.

Work out which numbers between 110 and 150 are blue and on their own.

Show how you work it out.