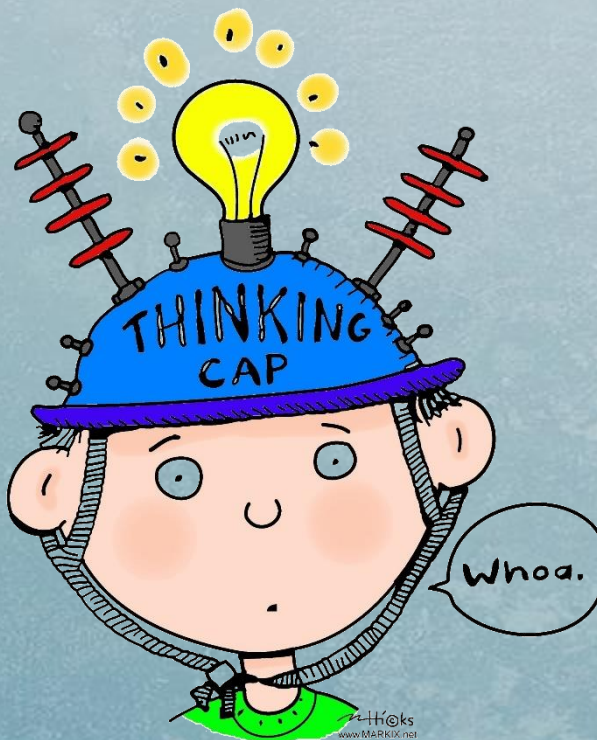


WALT round any number up to one million.

WILF:

Round to the nearest:

10, 100, 1000, 10 000, 100 000 and 1, 000, 000.



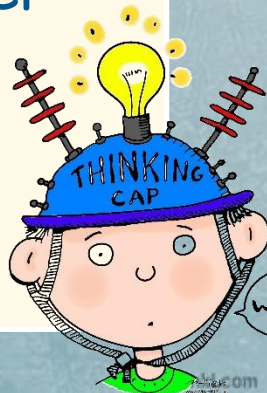
Click the picture for
a helpful song.



Rounding helps us to find
estimated amounts, so it's an important skill to have
to be able to check large calculations quickly.

Today we are working on our rounding with numbers
up to one million.

Imagine your number on a number line - is it closer
to 10 or 0? If it's closer to 10, you round up and
increase the digit on the left by 1. You then turn
the rounded digit and all those to the right to 0.



If you're rounding down, the number you're looking at stays the same, then all numbers to the right turn to 0.

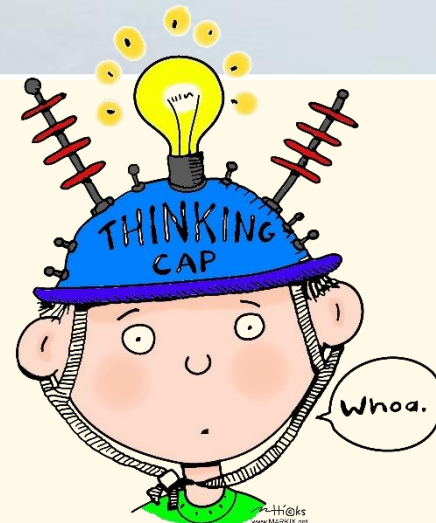
For example:

Find 197,845 rounded to the nearest ten thousand.

1) Find the ten thousand column. Because you are wanting the number to the nearest **ten thousand**, it's the number to the right of that you are rounding. So, in this case, the column on the right is the **thousands**.

Millions	Hundred Thousands	Ten Thousands	Thousands	Hundreds	Ones
1	9	7	4	6	5
			Is this number 5 or above?		
			No. So we round down.		
1	9	7	0	0	0

The ten thousands will then stay the same.

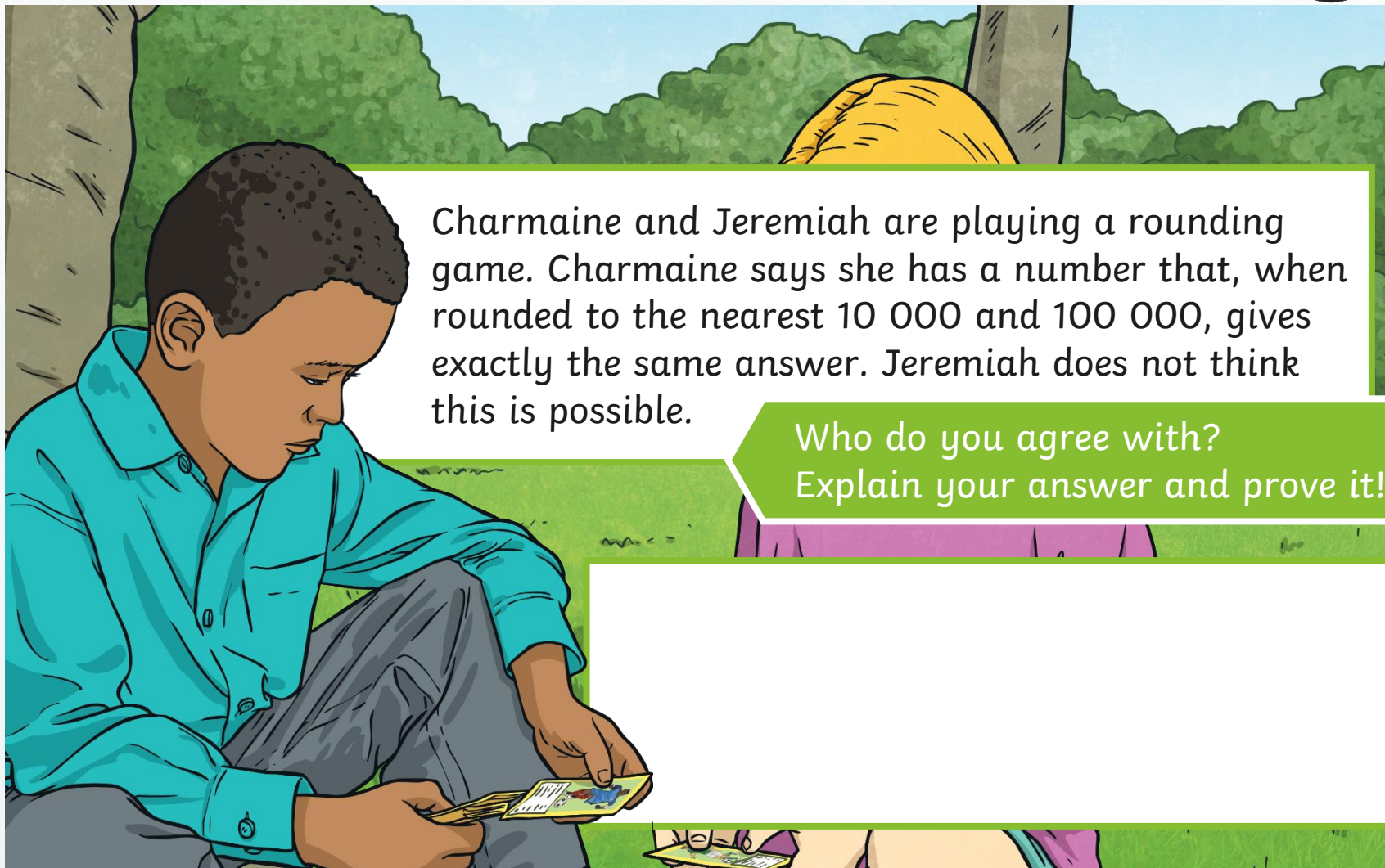


Round Numbers to 100,000.

What could the original number be? Give two possibilities for each.

Original Number	Rounded to the Nearest 100 000
	100 000
	600 000
	500 000

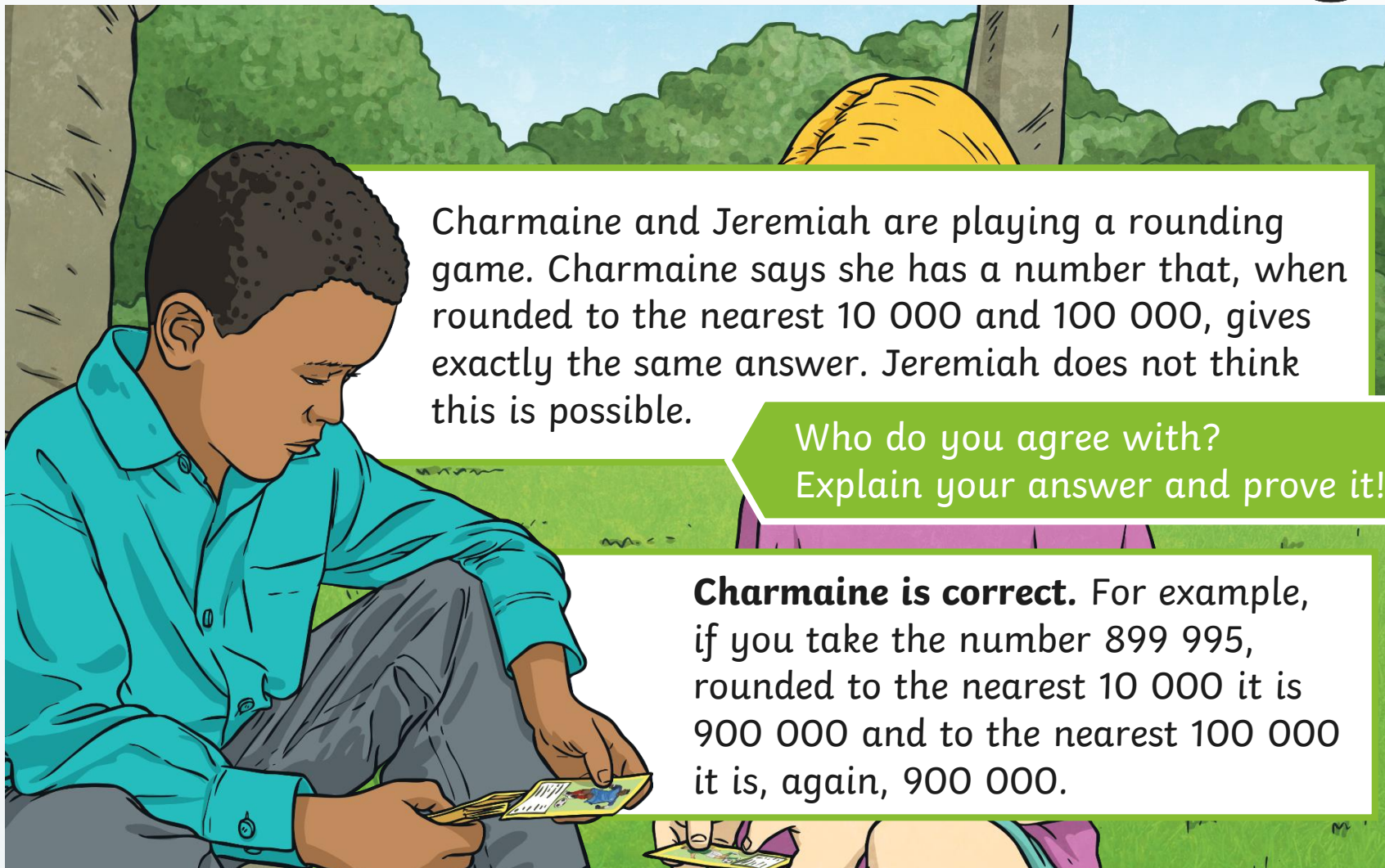
Round Numbers to One Million



Charmaine and Jeremiah are playing a rounding game. Charmaine says she has a number that, when rounded to the nearest 10 000 and 100 000, gives exactly the same answer. Jeremiah does not think this is possible.

Who do you agree with?
Explain your answer and prove it!

Round Numbers to One Million



Charmaine and Jeremiah are playing a rounding game. Charmaine says she has a number that, when rounded to the nearest 10 000 and 100 000, gives exactly the same answer. Jeremiah does not think this is possible.

Who do you agree with?
Explain your answer and prove it!

Charmaine is correct. For example, if you take the number 899 995, rounded to the nearest 10 000 it is 900 000 and to the nearest 100 000 it is, again, 900 000.

Round Numbers to One Million



**Why is
Frederik
wrong?**

Packs of playing cards are transported around the country in lorries. Each lorry can carry 100 000 packs of playing cards. 116 321 packs of playing cards are ready to be transported.

Frederik rounds the number of packs of playing cards to the 100 000 and says that 1 lorry will be needed.



Round Numbers to One Million

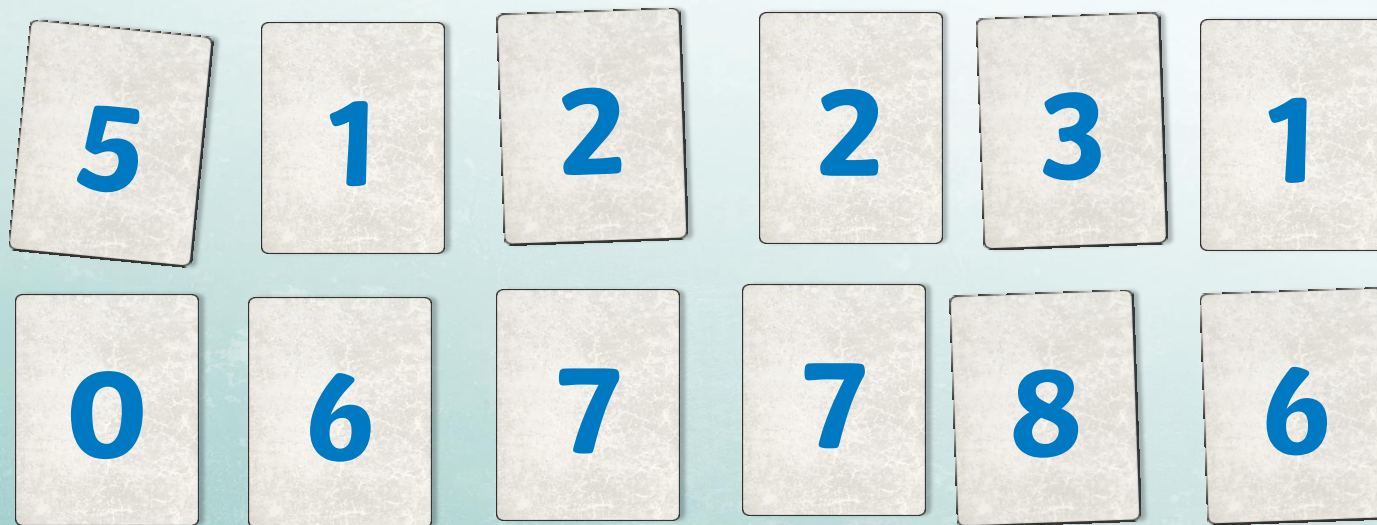


**Why is
Frederik
wrong?**

Because there are then 116 321 packs of playing cards left over! Frederick has rounded down, instead of up. He needs 2 lorries.



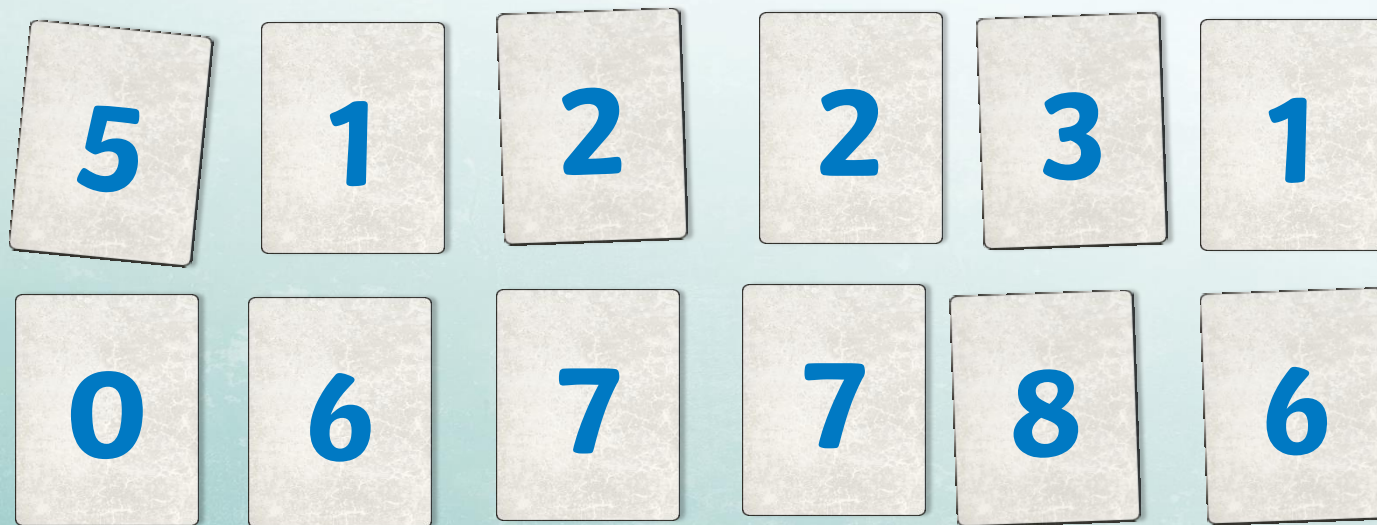
Round Numbers to One Million



Gertrude has some digit cards. Using **all** of the digit cards only **once**, she says that she can make two numbers that, when rounded to the nearest 100 000, are the same number. What could these numbers be? Can you find three different pairs of numbers?

*572 231 and 601 786
– both round to 600 000
706 512 and 723 186
– both round to 700 000
751 260 and 816 327
– both round to 800 000*

Round Numbers to One Million



Possible answer is

A= 5122

B= 7067

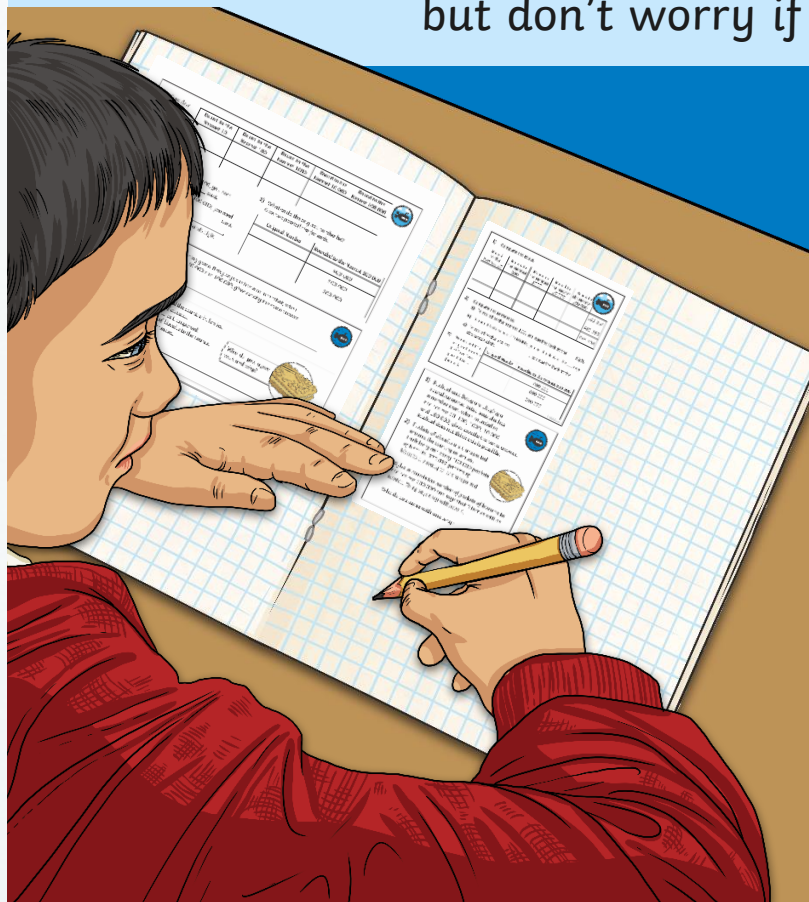
C= 6831

When A and B are rounded to the nearest 1000, the difference is 2000.

When B and C are rounded to the nearest 100, the difference is 300.

Round Numbers to One Million

Now have a go at the work. See how far through the sheets you can get, but don't worry if they get too hard.



1) Complete the table:

Round to the Nearest 10	Round to the Nearest 100	Round to the Nearest 1000	Round to the Nearest 10 000

2) Complete the sentences:

a) To round to the nearest 100, you need to look at the _____ digit.

b) To round to the nearest 100 000, you need to look at the _____ digit.

c) To round to the nearest _____, you need to look at the _____ digit.

3) What could the original number be? Give two possibilities for each.

Original Number	Rounded to the Nearest 100 000
	400 000
	800 000
	200 000

1) Rachael and Betsy are playing a rounding game. Betsy says she has a number that, when rounded to the nearest 10, 100, 1000, 10 000 and 100 000, gives exactly the same answer. Rachael does not think this is possible.

2) Packets of biscuits are transported around the country in lorries. Each lorry can carry 100 000 packets of biscuits. 323 892 packets of biscuits are ready to be transported. Sylvia rounds the number of packets to the nearest 100 000 and says that needed. Terry says they will need 4 lorries.

Who do you agree with and why?

1) Gertrude has some digit cards. Using all of the digit cards only once, she says that she can make two numbers that, when rounded to the nearest 100 numbers, then could these numbers be different pairs of numbers?

2) Gertrude makes three different four-digit numbers using the digit cards above. Can you work out what the numbers are from the clues? When A and B are rounded to the nearest 100, the difference is 2000. When B and C are rounded to the nearest 100, the difference is 800. What could the numbers be?

Hint: try using the same thousands digit for B and C.

Hint: try using the same thousands digit for B and C.

1) Complete the table:

	Round to the Nearest 10	Round to the Nearest 100	Round to the Nearest 1000	Round to the Nearest 10 000	Round to the Nearest 100 000
522 254					
412 985					
675 348					

2) Complete the sentences:

a) To round to the nearest 100, you need to look at the _____ digit.

b) To round to the nearest 100 000, you need to look at the _____ digit.

c) To round to the nearest _____, you need to look at the _____ digit.

3) What could the original number be? Give two possibilities for each.

Original Number	Rounded to the Nearest 100 000
	400 000
	800 000
	200 000

1) Rachael and Betsy are playing a rounding game. Betsy says she has a number that, when rounded to the nearest 10, 100, 1000, 10 000 and 100 000, gives exactly the same answer. Rachael does not think this is possible.

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Who do you agree with and why?

1) Gertrude has some digit cards. Using all of the digit cards only once, she says that she can make two numbers that, when rounded to the nearest 100 000, are the same number. What could these numbers be? Can you find three different pairs of numbers?

2	3	4	5	1	2
7	8	9	0	6	7



Gertrude makes three different four-digit numbers using the digit cards above. Can you work out what the numbers are from the clues? When A and B are rounded to the nearest 1000, the difference is 2000. When B and C are rounded to the nearest 100, the difference is 800. What could the numbers be?

Hint: try using the same thousands digit for B and C.

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