Solutions to "True or False" – Set 1
Submitted by Gracie and Georgie,
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19 + 15 = 34

This is **true** because I know that 20 + 15 = 35 and 19 is one less than 20, so the answer is one less than 35.

34 = 19 + 15

This is **true** because the previous sum has just been swapped around.
Gracie

19 + 15 = 0 + 34

This is **true** because adding zero makes no difference to 34.
Gracie

34 = 16 + 17

This is **false** because 6 add 7 is 13, therefore the answer should end in a three, and 34 does not end in a three.
Georgie

19 + 15 = 15 + 19

This is **true** because I know that addition is **commutative**. This means that the numbers in an addition number sentence can be written either way round.
Georgie

19 + 15 = 21 + 13

This is **true** because if you have added 2 onto 19 and taken 2 away from 15.
Gracie

34 = 34

This is **true** because 34 is the same as 34.
Georgie

19 + 15 = 20 + 16

This is **false** because you have added one onto both 19 and 15.
Georgie

19 + 15 = 34 + 0

This is **true** because this one is exactly the same as 19 + 15 = 0 + 34, except the zero and 34 have moved places. I know that addition is **commutative** so this is true.

Georgie

19 + 15 = 22 + 18

This is **false** because you have added numbers onto both 19 and 15.

Gracie

19 + 15 = 34 + 15

This is **false** because I know from the first question that 19 + 15 = 34, so if I add another 15 it's going to be larger.

Georgie

15 + 19 = 20 + 14

This is **true** because you have added one to 19 and taken one away from 15.

Gracie

Solutions to "True or False" – Set 2
Submitted by Gracie,
Horfield CEVC Primary School, Bristol

346 + 289 = 349 + 286

This is **true** because they have just swapped the ones digits around.

Gracie

727 + 581 = 581 + 727

This is **true** because the numbers are the same on each side. We know that addition is **commutative** so this is true.

Gracie and Georgie

478 – 192 = 480 - 194

This is **true** because they have added two to each number on the second half of the question so the **difference** is still the **same**.

Gracie

831 - 344 = 841 + 334

This is **false** because the numbers are different.

Gracie

727 + 581 − 581 = 727

This is **true** because you are adding 581, but then you are taking it away again.

Gracie

831 − 344 + 346 = 831

This is **false** because instead of adding 346, you would need to add 344 to make it equal.

Gracie

169 + 672 = 2041

This is **false** because if you round 672 to 700 (nearest 100) and you round 169 to 200 (nearest hundred), you are nowhere near 2000.

Gracie