Alternate algorithms:

1. Show how to compute 64+37 using each strategy:

1. Add on in chunks using multiples of 10 and 100 as bridge numbers (show on an open number line)
2. Add in place values and combine (write out using equations)
3. Add highest place values and compensate
4. The expanded addition algorithm

2. Show how to compute 358 + 284 using each strategy:

1. Add on in chunks using multiples of 10 and 100 as bridge numbers (show on an open number line)
2. Add in place values and combine (write out using equations)
3. The expanded addition algorithm
4. The British standard algorithm

3. Show how to compute 83 - 59 using each strategy:

1. Add up to the minuend in chunks using multiples of 10 and 100 as bridge numbers (show on an open number line)
2. Subtract in place values using negative numbers (the negative numbers algorithm)
3. Subtract highest place values and compensate
4. Break into place values (expanded subtraction)
5. Equal additions subtraction algorithm

4. Show how to compute 624 – 158 using each strategy:

1. Add up to the minuend in chunks using multiples of 10 and 100 as bridge numbers (show on an open number line)
2. Subtract in place values using negative numbers (the negative numbers algorithm)
3. Break into place values (expanded subtraction)
4. Trade first subtraction
5. Equal additions subtraction algorithm

5. A student is subtracting 71-28 by:

|  |  |
| --- | --- |
| subtracting the tens | 70 - 20 = 50 |
| adjusting the answer for the 8 in 28 | 50 – 8 = 42 |
| adjusting the answer for the 1 in 71 | 42 + 1 = 43 |

1. in step 2, why is the 8 subtracted rather than added?
2. in step 3, why is the 1 added rather than subtracted?