

A homework problem

A farm is managed by two committees. The combination on the lock for the watering system is kept secret. Each committee must contribute part of the secret combination, which is 203.

The corn committee consists of Albert, Betty, and Charlie. At least two of the three people on this committee must consent to open the lock.

The wheat committee consists of Betty, Debbie, Edward, Fran, Gilda, and Harry. At least four of these six people must consent to open the lock.

Give everyone mentioned numbers which will allow this to occur. Note that what you could do is “share a secret number” over the corn committee, and then “share another secret number” over the wheat committee, and make the combination (203) the sum of the two numbers.

Please make Betty’s life easier by arranging that she only needs to remember one x value and one y value which would work in either committee’s considerations.

You should tell:

- Your polynomial for the corn committee, and the numbers you give each member of the corn committee.
- Your polynomial for the wheat committee, and the numbers you give each member of the wheat committee. Note that the degree of this polynomial should be . . .

You don’t need to make up anything very complicated. Just describe the numbers and the polynomials and the “protocol”: that is, how these will be used.

A homework problem

A farm is managed by two committees. The combination on the lock for the watering system is kept secret. Each committee must contribute part of the secret combination, which is 203.

The corn committee consists of Albert, Betty, and Charlie. At least two of the three people on this committee must consent to open the lock.

The wheat committee consists of Betty, Debbie, Edward, Fran, Gilda, and Harry. At least four of these six people must consent to open the lock.

Give everyone mentioned numbers which will allow this to occur. Note that what you could do is “share a secret number” over the corn committee, and then “share another secret number” over the wheat committee, and make the combination (203) the sum of the two numbers.

Please make Betty’s life easier by arranging that she only needs to remember one x value and one y value which would work in either committee’s considerations.

You should tell:

- Your polynomial for the corn committee, and the numbers you give each member of the corn committee.
- Your polynomial for the wheat committee, and the numbers you give each member of the wheat committee. Note that the degree of this polynomial should be . . .

You don’t need to make up anything very complicated. Just describe the numbers and the polynomials and the “protocol”: that is, how these will be used.