L106

Blind Date

Some pupils play a game. Each pupil is given a card with a number from 1 to 100 and all the pupils stand up. The teacher gives clues. If the number each pupil has does not agree with the clue then they have to sit down. The winner is the pupil who is left standing. From the clues decide which number wins.

Game 1

The number has two digits.
The number is odd.
The sum of the two digits is 5.
The digits differ by one.

Game 2

The number is greater than 50.
The number is an even number.
If you add the digits you get 13.
The difference between the digits is 3.

Objectives

- Use one piece of information at a time and see what effect it has
- Check that the answer meets all of the criteria
- Solve a problem by identifying given facts and prioritising them
- Use recording to make sense of the information given and to find missing information

Source: 5-14 Maths support pack "I Can Solve Problems" (Glasgow)

Answer to L106 Blind Date

1. 23

2. 58

Notes

The key strategy in this type of problem is to use the clues in the most helpful order. In this case, the clues can be used in the order in which they have been given. Importantly, this type of problem gives younger children an opportunity to experience for themselves the benefits of working systematically and using one piece of information at a time.

The 100 Square on the next page could be used by children to support their thinking, for example by crossing out numbers that don't fit the clues or by circling numbers that do.

Game 1

The number has two digits: So we can cross out the numbers 1- 9 and also 100

The number is odd: So we can cross out all the even numbers

The sum of the two digits is 5: As it is an odd number, the second digit must be odd and the first digit must be even. This gives us only two possibilities: 23, 41

The digits differ by one: So the number must be 23

Game 2

The number is greater than 50: So we can cross out numbers 1 – 50

The number is an even number: So we can cross out all the remaining odd numbers

If you add the digits you get 13: The possibilities are: 58, 76, 94

The difference between the digits is 3: So the answer must be 58

L6 Who am I? and L70 Who Am I? + are similar problems to this one.
L31 Dan the Detective is also very much like this problem
L56 Find my Number and L102 Find my Number + are similar but involve much larger numbers

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1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

 Source: 5-14 Maths support pack “I Can Solve Problems” (Glasgow)