1)

Start	45	35	45	54	63	84	42	43	92
9	25	36	15	7	65	72	90	99	100
6	18	27	10	0	72	37	81	70	108
27	61	100	21	33	56	58	90	32	Finish

2) 9, 18, 27, 45, 54, 72, 81, 90, 99

The missing numbers are 63 and 108.

3)

$9 \times 5 =$ 45 $9 \times 5 \times 10 =$ 450 $9 \times 5 \times 100 =$ 4500

$45 \div 9 =$ 5 $450 \div 90 =$ 5 $4500 \div 900 =$ 5

4)

$9 \times 4 =$ 36 $12 \times$ 9 $= 108$ $36 \div 9 =$ 4

$108 \div 9 =$ 12   40 $\times 9 = 360$ $1080 \div 90 =$ 12

Group One	Group Two
$9 \times 4 = 36$	$12 \times 9 = 108$
$36 \div 9 = 4$	$108 \div 9 = 12$
$40 \times 9 = 360$	$1080 \div 90 = 12$

1)

Multiples of 9	Multiples of 6

45   18   36   24

27   6   12

54

81   9
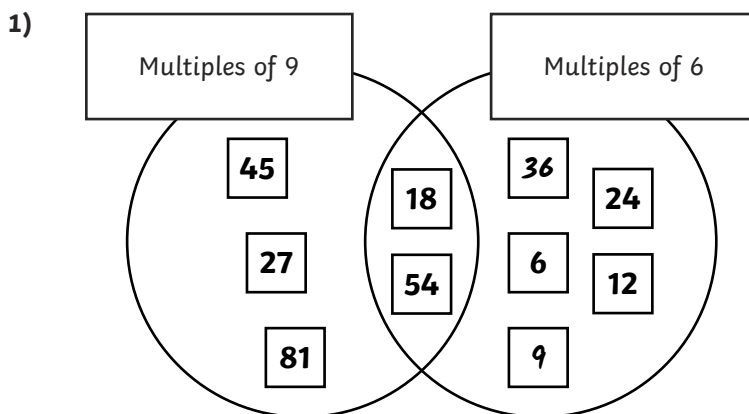
Disagree. Molly has put 36 in the wrong place. It is a multiple of 6 and 9 so should be in the overlapping section (intersection) of the Venn diagram. She has also put 9 in the wrong place because this should be in the 'Multiples of 9' section and not in the 'Multiples of 6' section.

2) $700 \times 9 = 63\,000$ is the odd one out because the answer is incorrect. The answer should be 6300.

3) 540 ÷ $9 = 60$ 9 $\times$ 6 $= 54$ $9 \times 6 \times$ 10 $= 540$

In the first calculation, the missing symbol can only be ÷ as the answer is becoming smaller. If a multiplication symbol was inserted into this calculation, the answer would become greater (44860). In the second calculation, the missing numbers can only be 9 and 6 but may be in any order. In the last calculation, children are required to recognise that the missing number must be 10, as $54 \times 10 = 540$.

1)

❤️	🙂	🌙	⭐	☁️	⚡	☀️	🔺	⬅️	🌈
9	1	5	3	7	2	6	8	4	0

Calculations in the order they appear on the worksheet

$5 \times 9 = 45$

$3 \times 9 = 27$

$8 \times 9 = 72$

$6 \times 9 = 54$

$9 \times 9 = 81$

$2 \times 9 = 18$

$12 \times 9 = 108$

$10 \times 9 = 90$

$11 \times 9 = 99$

$4 \times 9 = 36$

$7 \times 9 = 63$

$1 \times 9 = 9$

2) *Identify which calculations can only have one possible answer. For example, the calculation with a three-digit answer must be $12 \times 9 = 108$ because this is the only one to have a three-digit number as an answer. Explanations may also talk about identifying the heart as being 9 because it is the symbol that is repeated in each 9 times table calculation. Some children may explain how they found 11×9 as 11 is the only multiple that has two digits the same, which means the 1 is a smiley face. Explanations may also talk about how solving one calculation helps to solve another. As children begin to insert the known values for each symbol, they can use this to establish what is missing. For example, in the answers to calculations 2 and 3, the symbols are the same but reversed, so this can be used to work out the first symbol in each calculation.*