1) Match the representations that show the same calculation in different ways.

a) 15 × 14   **c)** 24 × 32

b) 12 × 23   **d)** 45 × 16

×	10	2
20	200	40
3	30	6

I

×	40	5
10	400	50
6	240	30

J

×	20	4
30	600	120
2	40	8

K

×	10	5
10	100	50
4	40	20

D

B, E, F, A, C, L, G, H

2) a) Use base ten to represent 14 × 17.

Next, use place value counters to show this multiplication calculation.

Finally, show this correctly using a grid.

b) What is the same and what is different about the three representations?

1) Melissa, Harry and Hank are calculating 24 × 18. They each share their strategy for finding the product.

Melissa

I will partition the numbers into 20 and 4 and 10 and 8 and use the grid method.

I will do 24 × 10 and then 24 × 8 and add these together.

Hank

I will do 20 × 10 and 4 × 8 and then add this together.
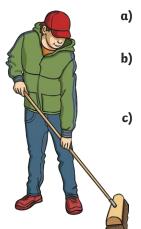
Harry

Whose method would you choose and why?

2) Zena is practising the grid method of multiplying 2-digit numbers. Can you identify the mistakes she has made and explain what she has done wrong?

×	50	2
20	100	40
4	200	8

×	30	5
30	900	150
6	18	30

1) The children at Twinkl Academy are trying to solve the caretaker's clues to find the measurements of their rectangular school hall floor. The caretaker says that the length of each side of the hall floor is a 2-digit number and the area of the hall floor is between 350m² and 400m².

a) What could the measurements be? Find three possible solutions.

b) The caretaker adds that one of the sides has a digit sum of 5. Find three possible solutions.

c) The caretaker gives a final clue. He says the other side has a digit sum of 8 and the exact area is 391m². What are the exact measurements of the hall?