

Name & Surname: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Class: \_\_\_\_\_\_\_

Grade 4 & 5 2025 # 19 Hand in by Thurs 26 June

Mary and Paul each wrote down three 3-digit numbers using the digits 1 to 9 exactly once. Then they ordered their numbers as smallest, middle and largest.

Mary wrote down the largest possible value the middle number could have.

Paul wrote down the smallest possible value the middle number could have.

What is the difference between their two middle numbers?

[The middle number is simply between the other two; it doesn’t need to be midway between the other two numbers.]

The hundred-digit of the largest middle number cannot be 9 because this would not leave

a suitable digit for the larger 3 digit number. So the largest middle number must start with an 8, leaving the 9 for the larger one. It is now clear the largest middle number is 876. Similarly the smallest middle number is 234. Their difference is 876-234=642.