

Not Too Close Questions

The following questions are for a teacher to direct to students about the Transum online activity called Not Too Close. When the activity has been completed use the created arrangement of numbers to ask the following revision questions:

- □ Could a straight line be drawn on the diagram to separate the odd and even numbers?
- □ How many of the numbers are square numbers?
- □ How many of the numbers are prime numbers?
- □ How many of the numbers are triangular numbers?
- □ How many of the numbers are cube numbers?
- □ Which numbers are factors of other numbers in the diagram?
- □ Which numbers are multiples of other numbers in the diagram?
- □ Which row of seats has the largest sum?
- □ Which row of seats has the smallest product?
- □ Which row of seats has the largest mean?
- □ Which row of seats has the smallest median?
- □ Which row of seats has the largest range?
- Consider the four digit number made from the digits in the central column. Is it divisible by 2?
- \Box Is it divisible by 5?
- \Box Is it divisible by 9?
- \Box Is it divisible by 3?
- □ What is the quickest way to find the sum of all the numbers in the diagram? (refer to Gauss)

Without seeing diagram

Now ask the students to memorise the numbers in the diagram. After a minute turn off the projector and ask questions similar to the following:

- □ What number is at the bottom of the diagram?
- □ What number is to the left of the eight?
- □ What number is in the same row as two square numbers?
- □ What is the difference between the numbers at the top and bottom of the diagram?
- □ What number is in between the lowest two numbers?
- □ What number is in between the two largest numbers?
- □ If all of the numbers were doubled, what number would be to the right of the two?
- □ Add up all four numbers in the left and right columns



Note that your students may have come up with a different arrangement. This diagram is just one of the possibilities