## FILLING THE BUSES ...

A school is planning a bus trip to the swimming pool for the school sports.


There are 489 students and 24 teachers at the school and each bus can hold 45 passengers. Everyone must wear a seat-belt.

For each question, show all your working and explain how you got your answer in as much detail as you can.
a. How many buses will be needed to carry all the students and teachers to the pool?
b. Make a plan for the most likely way for the students and teachers to travel to the pool by bus. Show how many students and teachers will be on each bus.

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| FILLING THE BUSES |  |  |  |
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| TASK: | RESPONSE: | SCORE |  |
| a. | No response or incorrect with no working and/or explanation | $\mathbf{0}$ |  |
|  | Incorrect (eg, 11 or 11.4 buses), working and/or explanation <br> indicates that multiplication/division is needed but not all <br> information taken into account, eg, need to include teachers and <br> students in total, or remainder is not interpreted relevant to context | $\mathbf{1}$ |  |
|  | Correct (12 buses), little/no working and/or explanation, or <br> evidence of an inefficient additive strategy, eg, 45+45+45+ ... | $\mathbf{2}$ |  |
|  | Correct (12 buses), working and/or explanation indicates efficient <br> multiplicative strategy, eg, 10x45=450, 1 more bus for 495, so 12 <br> needed | $\mathbf{3}$ |  |
| b. | No response or irrelevant, eg, drawing of bus with passengers, no <br> indication of how students and teachers might be allocated. | $\mathbf{0}$ |  |
|  | Plan shows correct number of buses but little/no consideration <br> given to the likely distribution of students and teachers | $\mathbf{1}$ |  |
|  | Plan is more systematically, thoughtfully presented in relation to <br> context, eg, recognises need for some teachers to be on each bus | $\mathbf{2}$ |  |

