Sangeeta and Jeff are planning an investigation into which brain areas are involved in mental arithmetic. They have decided to scan their participants’ brains whilst they do two tasks: (1) working out sums of three figure numbers and (2) repeating back lists of common words. However, Sangeeta and Jeff disagree about which sort of brain scan they should use. Jeff thinks they should use PET, whilst Sangeeta thinks they should fMRI.

**Assess PET and fMRI as ways of investigating brain function. You must refer to the context in your answer.**

Name

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| **Areas where you could improve.** | **Criteria.** | **Areas where you have exceeded expectation.** |
|  | **Relevance.**Your response is presented as an answer to the question (i.e. which is the most appropriate sort of scan *in this research*.)Relevance is maintained throughout the essay by linking each point of your argument to your overall answer..  |  |
|  | **Analysis and application.**You have identified several important features of the scenario and explained how and why PET and fMRI might be appropriate for this study. |  |
|  | **Critical thinking.**You have considered the strengths and weaknesses of the two sorts of scan. You have considered alternative and/or conflicting points of view where relevant. |  |
|  | **Knowledge and understanding.**You have supported your points with factual information about PET and fMRI. |  |
|  | **Writing.**You have written in a formal academic style and used technical vocabulary in an appropriate way. Your spelling, punctuation and grammar are accurate. |  |