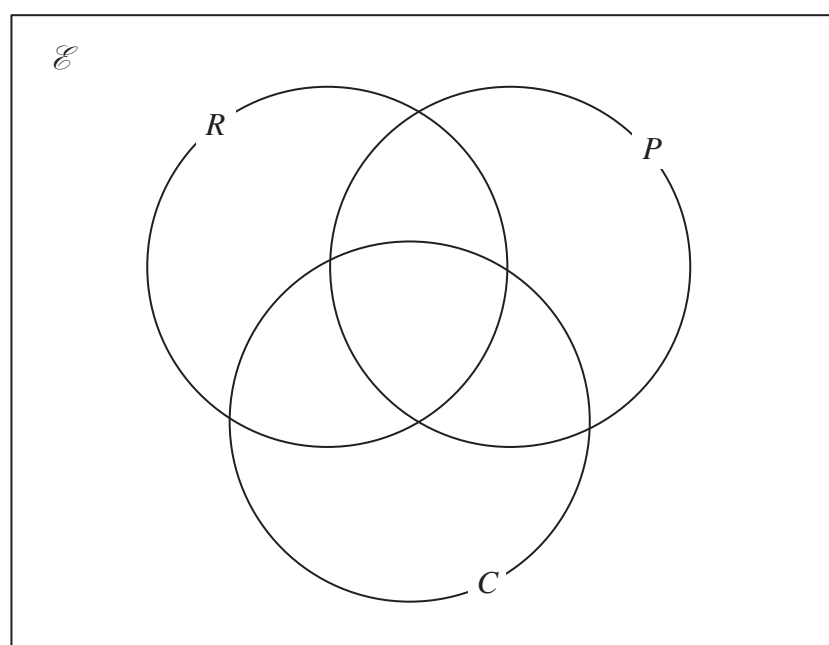**7** Mr Ng is the head of mathematics at a school.
He asked the students in Year 9 which of a ruler (R), a protractor (P) and a calculator (C) they each had.

Of these students

    10 students had a ruler, a protractor and a calculator
    25 students had a ruler and a protractor
    18 students had a protractor and a calculator
    17 students had a ruler and a calculator
    54 students had a ruler
    49 students had a protractor
    29 students had a calculator
     8 students did not have a ruler or a protractor or a calculator.

(a) Show all this information in the Venn diagram.

(3)

(b) Find the number of students in Year 9

(2)

(c) Find n($[R \cup P]'$)

(1)

One of the students in Year 9 is chosen at random.

(d) Given that this student had a calculator, find the probability that this student had a ruler but not a protractor.

(2)

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Question 7 continued

(Total for Question 7 is 8 marks)

P 5 9 0 1 5 A 0 1 5 3 2