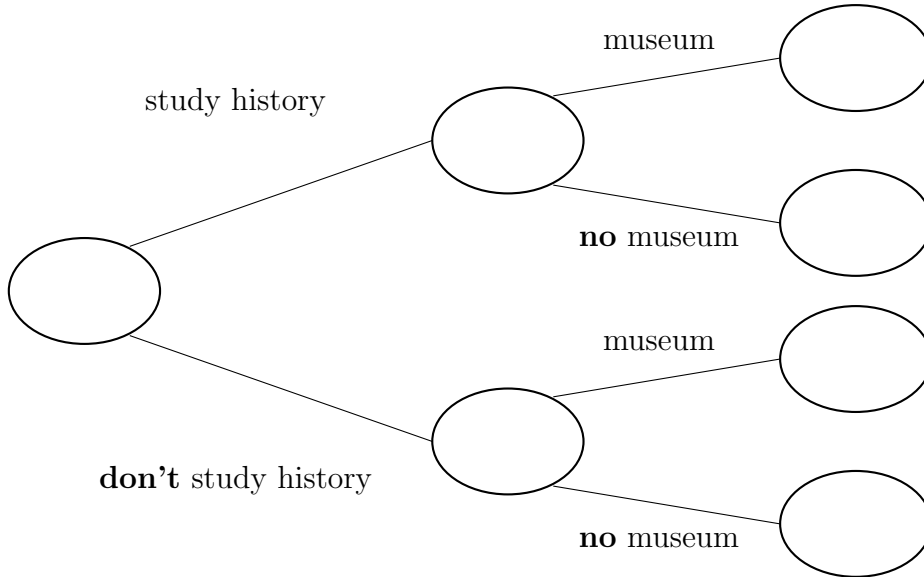1. a) 180 students were asked whether they study history and if they have been to a museum.

   41 of the students study history.

   2 of the students who study history have **not** been to a museum.

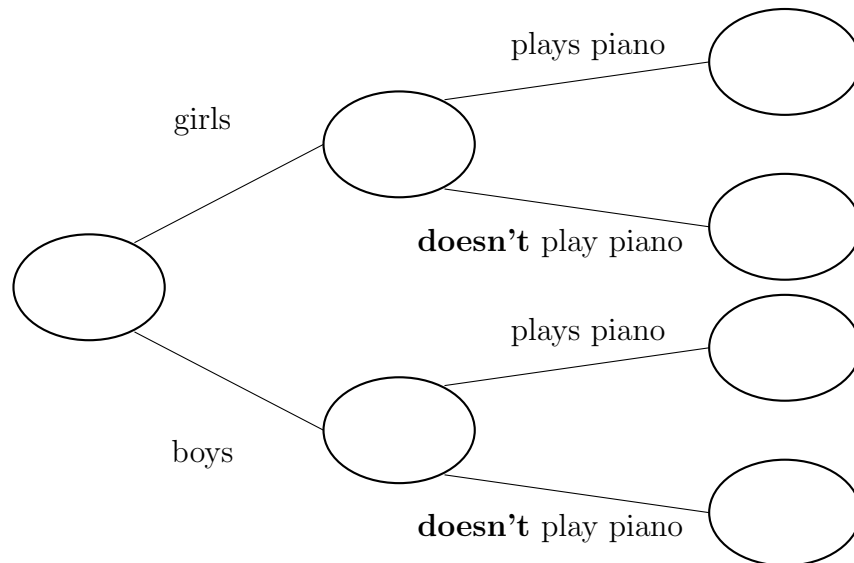   87 of the students who do **not** study history have **not** been to a museum.

   Use this information to complete the frequency tree.

   One of the students is chosen at random.

   b) Work out the probability of that this student has been to a museum.   . . . .

2. a) 28 students study music for GCSE.

   11 of the GCSE music students are boys.

   3 of the girls play the piano.

   5 of the boys do **not** play the piano.

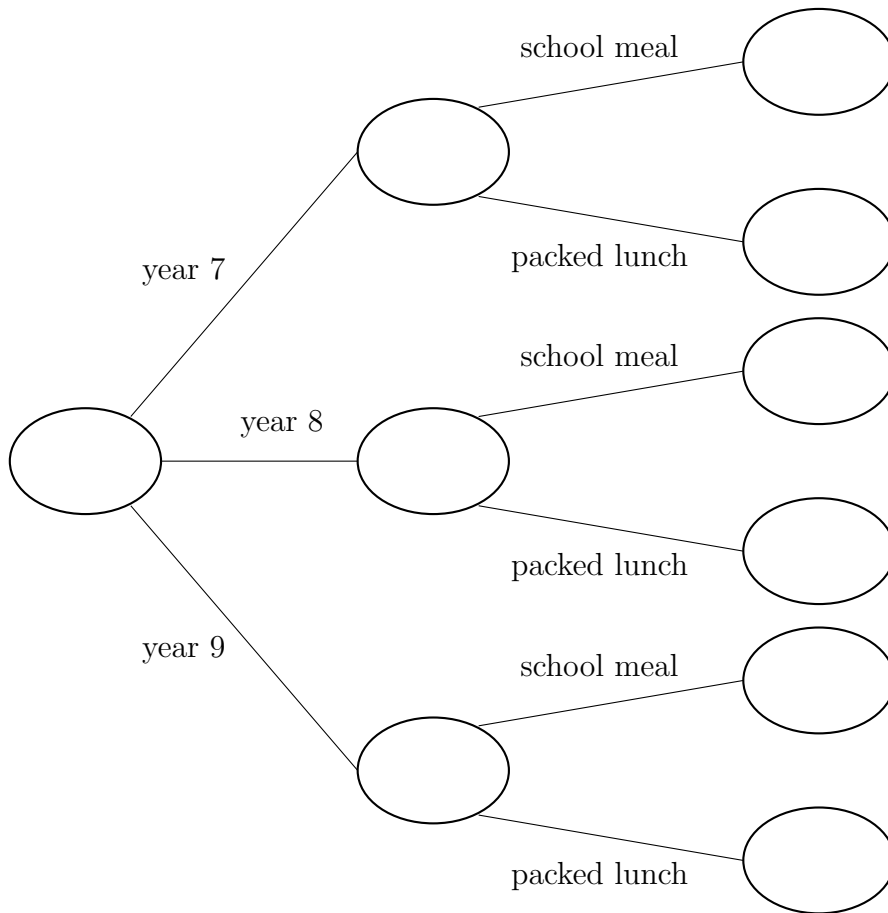   Use this information to complete the frequency tree.

   One of the students is chosen at random.

   b) Work out the probability of that this student **doesn't** play the piano.   . . . .

3. 360 KS3 students have lunch at school.

   125 students in year 7 have lunch at school.

   115 students in year 9 have lunch at school.

   10 students in year 7 have packed lunch.

   98 students in year 8 have a school meal.

   90 students in year 9 have a school meal.

   a) Use this information to complete the frequency tree.

   One of the KS3 students is chosen at random.

   b) Work out the probability of that this student has packed lunch.   . . . .

   Answers: 1)   2)   3)

   a)   39   *a)*   3   *a)*   115
              41   17   125
                     2   14   10
        180   28   98
                     52   6   360   120
              139   11   22
                     87   5   90
                                                                    115
        b) $\dfrac{19}{28}$ *b)* $\dfrac{57}{360}$ 25

                                                              2b) $\dfrac{91}{180}$