# Qualified Teacher Status (QTS) – On-screen Answers

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| Qu. | Answer | Step 1 | Step 2 | Step 3 |
| 1 | £188.81 | £3.75 x 53 = £198.75 | £198.75 x 5% = £9.94 |  |
| 2 | a is true  c is true | Statement a is true. This is proved by adding up each part of the “pie” to get the total number of pupils, as follows;  80 + 60 + 40 + 10 + 10 = 200  Statement c is true. 80 of the 200 pupils chose football;  80/200 x 100% = 40%  Statement b is false. This is demonstrated as follows;  40 pupils have swimming as their favourite sport.  40/200 = 1/5 | | |
| 3 | a is true | Statement a is true. For the dates 2006, 2007 and 2008 the % of boys passing the Maths test has been higher than the national average %.  Statement b is false since between dates 2006-2008 the national average has stayed the same at 51.2%.  Statement c is false since between 2007 – 2008 the % of boys passing the test reduced from 99.2% to 98.2%. | | |
| 4 | c is true | Statement a is false since the school’s attendance rate decreased from 94.9% for school year 2003/04 to 94.7% for school year 2004/05.  Statement b is false since the national trend has consistently increased – not decreased – between each set of school years shown.  Statement c is true. This is proved by looking at the difference between the % figures for attendance rate 2004/05 and the national average (94.9 – 94.7 = 0.2) | | |
| 5 | 1810 hrs | Add one and a half hours to 1550 hrs = 1720 hrs | Add 15 minutes to 1720 hrs = 1735 hrs | Add 35 minutes to 1735 hrs = 1810 hrs |
| 6 | 18.2% | There are 330 pupils in total. | 60 pupils have Maths | 100 x 60/330 = 18.185 = 18.2% (to 1 decimal place) |
| 7 | 1/10 | 33 pupils have Physics | 33/330 = 1/10 |  |
| 8 | b is true  c is true | Statement b is true because both mean scores are correct.  Mean for Maths Test A = (19 + 15 + 11 + 25 + 22 + 18)/6 = 18.3  Mean for Maths Test B = (22 + 25 + 19 + 27 + 20 + 22)/6 = 22.5  Statement c is true. The mode for Maths Test B is the most popular score which is 22.  Statement a is false because the score range for Maths Test A is 11-25 (not 11-26). | | |
| 9 | 2006 | The % school size (against the national average) needs to be calculated for each year? | 2006; 185/242 x 100% = 76.4%  2007; 174/240 x 100% = 72.5%  2008;165/241 x 100% = 68.5% | The highest % school size (against the national average) was in 2006. |
| 10 | 7 | The scatter plot shows that 7 pupils had Score Achieved marks than were at or higher than their Teacher Assessment mark. |  |  |
| 11 | 19.8 | Mean score = (27+25+23+22+21+20+20+20+16+15+14+14)/12 | Mean score = 19.75 | 19.8 (to one decimal place) |
| 12 | 35% | Pupils achieving 2 A-level passes + Pupils achieving 1 A-level pass = 29 + 5 = 34 | Total number of pupils = 5 + 29 + 49 + 15 = 98 | 34/98 x 100% = 34.69%  34.69% = 35% to the nearest % |
| 13 | a is true  b is true | Statement a is true since overall performance was higher in the English test compared to the Maths test. More pupils achieved A and B grades on the English test. Less pupils received the lowest D and E grades  Statement b is true since 55% of pupils (35 + 20 = 55 out of 100 pupils) got an A or B grade in the English test.  Statement c is false since more than half the pupils got grades C, D or E in the Maths test (10 + 20 + 25 = 55 out of 100 pupils). | | |
| 14 | b is true | Statement a is false because more than a third of the class pupils scored lower marks on Test 2 compared to Test 1.  Statement c is false because the pupil with the lowest score on Test 2 did not score the lowest score on Test 1.  Statement b is true because the score range for Test 2 (25 - 10 = 15) differs from that for Test 1 (27 – 13 = 14). | | |
| 15 | a is true | Statement a is true because the number of boys by year ranges from 13 to 17. The lowest point shown is 13. The highest point shown is 17.  Statement b is false because the smallest class size was in year 2005 (30 pupils) and not in year 2007 (32 pupils).  Statement c is false because in one year (2004) there were less girls than boys in the class. | | |
| 16 | b is true | Statement a is false; Mean score = (total for boys and girls)/12 = 204/14 = 14.57  Statement b is true;  Score range (Boys) = 12 to 19 = 7  Score range (Girls) = 9 to 19 = 10  Statement c is false because putting the female scores in the following order; 9, 11, 12, 14, 16, 17,19, shows that the median score was 14 | | |
| 17 | a is true  c is true | Statement a is true because the 45 pupils who walk to school is over twice the number (20) of those who travel by coach.  Statement c is true because the 70 pupils who travel to school by car is less than half the total (Total number of pupils = 70 + 20 + 45 + 12 + 24 = 171).  Statement b is false because the ratio of those who travel by train compared to those who walk is not 1:2 but 24:45. | | |
| 18 | 16-30 | The overall range is the lowest number of drama class pupils (16) to the highest number of drama class pupils (30). | | |
| 19 | b is true | Statement a is false.  Total pupils taking Maths test = 22 + 25 + 10 + 14 = 71  Total pupils achieving grade 3 = 10 + 14 = 24  24/71 is more than a third.  Statement b is true.  Total pupils taking the English test = 28 + 24 + 11 + 12 = 75.  Total pupils who achieved Level 2 = 28 + 26 = 54  100 x 54/75 = 72%  Statement c is false. Less girls than boys achieved Level 2 in the English test. | | |
| 20 | 17.0 | (30 x 15) + (29 x 20) + (31 x 16))/(30 + 29 + 31) = 1526/90 = 16.955 = (17.0 to 1 decimal place) | | |

# Additional answer explanations

## I’ve pulled out three questions and provided more details of their answer explanations below:

## Question 3

Here you can see how percentages come into their own as one of the most effective ways of comparing figures. The graphs and tables in QTS demonstrate how certain sorts of data are best suited to particular graphical formats.

## Question 10

Here you can see how scatter plots come into their own as one of the most effective ways of plotting two sets of scores and being able to clearly show overall performance for one set of scores compared to the other set of scores. Often a median line is plotted on such a scatter plot to split the top 50% (above the median line) from the bottom 50% (below the median line). You may also see the upper quartile and lower quartile lines plotted above and below this median line.

## Question 12

It is important to be able to quickly round up your answer to the number of decimal places specified in the question. The key things to remember are firstly that this is the last part of your calculation. Second, you only need to remember that the cut-off is .5. Anything lower and you round down. Anything higher and you round up.