

## Q1. (2017)

|      |                                                                                                               |      |                                                                                                                              |
|------|---------------------------------------------------------------------------------------------------------------|------|------------------------------------------------------------------------------------------------------------------------------|
| 9(b) | $\frac{3}{8}$                                                                                                 | B1ft | oe fraction, decimal or percentage<br>ft their list in (a) with at least four numbers,<br>at least one of which is two-digit |
|      | <b>Additional Guidance</b>                                                                                    |      |                                                                                                                              |
|      | $\frac{3}{8}$ is B1, if not $\frac{3}{8}$ refer to 9(a) for possible ft                                       |      |                                                                                                                              |
|      | 0.375 or 37.5%                                                                                                |      | B1                                                                                                                           |
|      | Ignore further working with description of probability eg $\frac{3}{8}$ unlikely                              |      | B1                                                                                                                           |
|      | Ignore further working with attempts to convert to percentage or decimal<br>eg $\frac{3}{8} = 37\%$ or $38\%$ |      | B1                                                                                                                           |
|      | 3 : 8 in working with $\frac{3}{8}$ on answer line                                                            |      | B1                                                                                                                           |
|      | 37% or 38% without $\frac{3}{8}$ or 37.5% in working                                                          |      | B0                                                                                                                           |
|      | 3 : 8 on answer line                                                                                          |      | B0                                                                                                                           |

## Q2. (2017)

(A)

|       |                                                                                                |    |                                     |
|-------|------------------------------------------------------------------------------------------------|----|-------------------------------------|
| 25(a) | $\frac{2}{3} \times 720$ or $\frac{3}{5} \times 700$                                           | M1 | oe<br>Accept use of 0.66... or 0.67 |
|       | 480 or 420                                                                                     | A1 |                                     |
|       | 900                                                                                            | A1 | Ignore fw                           |
|       | <b>Additional Guidance</b>                                                                     |    |                                     |
|       | 900 with no working                                                                            |    | M1A1A1                              |
|       | 900 out of 1420 or $\frac{900}{1420}$ (ignore fw)                                              |    | M1A1A1                              |
|       | $\frac{480}{720}$ (480 boys out of 720) or $\frac{420}{1420}$ (420 girls out of 1420 students) |    | M1A1A0                              |

(B)

|       |                                                                                                                      |      |                                                                                                                   |
|-------|----------------------------------------------------------------------------------------------------------------------|------|-------------------------------------------------------------------------------------------------------------------|
| 25(b) | <b>Alternative method 1</b>                                                                                          |      |                                                                                                                   |
|       | 720 + 700 or 1420<br>or 720 + 700 – their 900<br>or 520                                                              | M1   | oe                                                                                                                |
|       | $\frac{520}{1420}$ or $\frac{26}{71}$                                                                                | A1ft | oe fraction, decimal or percentage<br>0.36(6...) or 0.37<br>36.(6...) % or 37 %<br>ft their part (a)<br>Ignore fw |
|       | <b>Alternative method 2</b>                                                                                          |      |                                                                                                                   |
|       | 720 + 700 or 1420<br>or $\frac{1}{3} \times 720$ or 240<br>or $\frac{2}{5} \times 700$ or 280<br>or 240 + 280 or 520 | M1   | oe                                                                                                                |
|       | $\frac{520}{1420}$ or $\frac{26}{71}$                                                                                | A1   | oe fraction, decimal or percentage<br>0.36(6...) or 0.37<br>36.(6...) % or 37 %<br>Ignore fw                      |
|       | <b>Alternative method 3</b>                                                                                          |      |                                                                                                                   |
|       | 720 + 700 or 1420<br>or $\frac{900}{1420}$ or $\frac{45}{71}$<br>or $\frac{\text{their } 900}{1420}$                 | M1   | oe fraction, decimal or percentage<br>0.63... or 0.63<br>63.(...) % or 63 %                                       |
|       | $\frac{520}{1420}$ or $\frac{26}{71}$                                                                                | A1ft | oe fraction, decimal or percentage<br>0.36(6...) or 0.37<br>36.(6...) % or 37 %<br>ft their part (a)<br>Ignore fw |

| 25(b)<br>cont | Additional Guidance                                                 |      |
|---------------|---------------------------------------------------------------------|------|
|               | $\frac{520}{1420}$ followed by incorrect simplification of fraction | M1A1 |

Q3. (2018)

(A)

|      |                                                                                                          |    |    |
|------|----------------------------------------------------------------------------------------------------------|----|----|
| 9(a) | $\frac{1}{10}$ or 0.1(0) or 10%                                                                          | B1 | oe |
|      | Additional Guidance                                                                                      |    |    |
|      | Ignore further working with any description of probability eg $\frac{1}{10}$ , unlikely                  | B1 |    |
|      | Ignore further working with attempt to simplify a correct fraction<br>eg $\frac{10}{100} = \frac{5}{20}$ | B1 |    |
|      | 1 : 10 in working with $\frac{1}{10}$ on answer line                                                     | B1 |    |
|      | 1 : 10 on answer line                                                                                    | B0 |    |
|      | 1 out of 10 without $\frac{1}{10}$ in working                                                            | B0 |    |

(B)

|      |                                       |    |                                                                                                                                                               |
|------|---------------------------------------|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 9(b) | ABC BAC CAB<br>ACB BCA CBA            | B2 | Any order<br>B1 for four additional correct orders with no errors or repetitions<br>or<br>five additional correct orders with at most one error or repetition |
|      | Additional Guidance                   |    |                                                                                                                                                               |
|      | Do not allow repetition of ABC for B2 |    |                                                                                                                                                               |

Q4. (2018)

|    |                     |    |  |
|----|---------------------|----|--|
| 20 | 0.8                 | B1 |  |
|    | Additional Guidance |    |  |
|    |                     |    |  |

Q5. (2022)

| Q    | Answer                                                                                                                                                        | Mark | Comments    |
|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-------------|
| 9(b) | $\frac{27}{35}$ or 0.77(...) or 77(. ...)%                                                                                                                    | B1   | oe fraction |
|      | <b>Additional Guidance</b>                                                                                                                                    |      |             |
|      | Ignore attempts to simplify or convert after correct fraction seen<br>eg1 $\frac{27}{35}$ seen, answer $\frac{5}{7}$<br>eg2 $\frac{27}{35}$ seen, answer 7.7% |      | B1<br>B1    |
|      | Ignore words if correct answer seen<br>eg1 $\frac{27}{35}$ seen, answer 27 out of 35<br>eg2 77%, unlikely                                                     |      | B1<br>B1    |
|      | Answer given as ratio (even if correct answer also seen)<br>eg 27 : 35                                                                                        |      | B0          |
|      | Answer only in words<br>eg 27 out of 35                                                                                                                       |      | B0          |
|      | Only 77 (without %)                                                                                                                                           |      | B0          |

## Q6. (2023)

| Q    | Answer  | Mark | Comments     |
|------|---------|------|--------------|
| 3(a) | D       | B1   |              |
|      | A and E | B1   | either order |

## Q7. (2024)

| Q  | Answer                                                                                                         | Mark | Comments |
|----|----------------------------------------------------------------------------------------------------------------|------|----------|
| 20 | This is not representative of all flats<br>or<br>He didn't take into account flats on the other floors         | B1   | oe       |
|    | <b>Additional Guidance</b>                                                                                     |      |          |
|    | Ignore incorrect or irrelevant statements or incorrect values alongside a correct reason, unless contradictory |      |          |
|    | Data is biased                                                                                                 |      | B1       |
|    | Missing floor or Misses top 2 floors (ignore incorrect value)                                                  |      | B1       |
|    | There could be different results on the other 4 floors (ignore incorrect value)                                |      | B1       |
|    | Must have a flat from each floor, do another 27 (ignore irrelevant statement)                                  |      | B1       |
|    | Only doing 5 out of the 8 floors                                                                               |      | B1       |
|    | Not tested any on floor 7 or 8                                                                                 |      | B1       |
|    | Missing most of the other floors (ignore 'most of' as irrelevant)                                              |      | B1       |
|    | Some floors might be different to others                                                                       |      | B1       |
|    | Sample all floors, sample size too small (ignore incorrect statement)                                          |      | B1       |
|    | Needs to sample them all (all may refer to all flats not floors)                                               |      | B0       |
|    | Sample too small                                                                                               |      | B0       |
|    | Some flats might be different to others                                                                        |      | B0       |
|    | Didn't test a third of the flats                                                                               |      | B0       |