

Topic Test 1 Mark Scheme

Standard form - Higher

| Q | Answer | Mark | Comments |
|---|---|------|--|
| 1 | Selects 5×10^3 and 2.8×10^5 | B1 | |
| | 275 000 | M1 | oe May be implied by correct standard form Condone their largest – their smallest correctly evaluated |
| | 2.75×10^5 | A1ft | ft B0M1 converts their difference to standard form |
| 2 | 2565.(...) | B1 | oe May be implied by correct final answer |
| | 2.6×10^3 or 3×10^3 | B2ft | ft their answer converted to standard form and rounded to 2sf or 1sf B1ft Correct use of standard form $2.565... \times 10^3$ or Correct rounding to 2sf or 1sf 2600 or 3000 oe |
| 3 | 0.000 006 2 | B1 | oe May be implied by correct final answer |
| | 6.2×10^{-6} | B1ft | ft their answer converted to standard form |
| 4 | $5.2 \times 10^8 \div 645$ | M1 | oe |
| | 806 201.(...) | A1 | oe May be implied by correct standard form |
| | 8×10^5 or 8.1×10^5 or 8.06×10^5 or $8.062... \times 10^5$ | B1ft | ft their answer converted to standard form |

| Q | Answer | Mark | Comments |
|------|---|------|---|
| 5(a) | $(2.7 \times 10^{-2}) \div (3.4 \times 10^{-4})$ | M1 | oe $0.0270 \div 0.000\ 340$ |
| | 79.(...) or 80 | A1 | |
| 5(b) | $(2.7 \times 10^{-2}) \times (1 - (3.4 \times 10^{-4}))$ or $(3.4 \times 10^{-4}) \times (1 - (2.7 \times 10^{-2}))$ | M1 | oe $0.0270 \times 0.999\ 66$ or $0.000\ 340 \times 0.973$ |
| | $(2.7 \times 10^{-2}) \times (1 - (3.4 \times 10^{-4}))$ and $(3.4 \times 10^{-4}) \times (1 - (2.7 \times 10^{-2}))$ | M1 | oe |
| | 0.02732164 | A1 | oe May be implied by correct final answer |
| | 0.0273 | A1ft | ft their answer rounded to 3sf if M1M1 scored |
| 6 | $3.72 \times 10^{13} \div 9 \times 5$ | M1 | |
| | $2.066... \times 10^{13}$ | A1 | oe May be implied by correct final answer |
| | 2.07×10^{13} or 2.1×10^{13} or 2×10^{13} | A1ft | ft their answer in standard form and rounded to 3sf, 2sf or 1sf if M1scored |