| Day 202 | B Tier 10-a-day |
|---|---|
| **1** Work out<br>(a) $\sqrt[3]{125} \times 8$<br>(b) the square root of 64 | |
| **2** n is an integer.<br>Write down all the values of n for which<br>$-2 \leq n \leq 3$ | |
| **3** (a) Convert 750 g to kg.<br>(b) Convert 1500 $cm^3$ to litres. | |
| **4** Factorise $y^2 - 8y$ | |
| **5** The number of members of a club goes from 120 to 162.<br>Work out the percentage increase. | |

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|---|---|
| **6** Expand and simplify $(3x - 6)^2$ | |
| **7** 20 birds in a lake are caught, tagged and returned to the lake.<br>Later, a sample of 40 birds is caught and 8 of them are tagged.<br>Estimate the total number of birds in the lake. | |
| **8** Two lights flash at 07:15.<br>One light flashes every 18 minutes.<br>The other light flashes every 12 minutes.<br>At what time do both lights next flash together? | |
| **9** An isosceles trapezium has parallel sides of length 14 m and 4 m.<br>Each sloping side is 13 m long.<br>(a) Work out the perpendicular height of the trapezium.<br>(b) Work out the area of the trapezium. | |
| **10** In a test, the mean mark of 20 Class A is 42.<br>The mean mark of 5 Class B is 62.<br>Work out the mean mark of all 25 students. | |