



| Q  | Answer                                                                                                                                                                | Marks |
|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| 1  | <b>a)</b> 2, 3, 5, 7, 11, 13, 17, 19, 23, 29<br><b>b)</b> Every even number bigger than 2 can be divided by 2, so it has more than two factors<br><b>c)</b> 31 and 41 | 3     |
| 2  | 3 and 29 (or 13 and 19)                                                                                                                                               | 2     |
| 3  | <b>a)</b> $1 \times 60, 2 \times 30, 3 \times 20, 4 \times 15, 5 \times 12, 6 \times 10$ <b>b)</b> 1, 2, 3, 6                                                         | 3     |
| 4  | 18                                                                                                                                                                    | 2     |
| 5  | <b>a)</b> 72 and 96 <b>b)</b> 60                                                                                                                                      | 3     |
| 6  | $2^3 \times 3 \times 11$                                                                                                                                              | 2     |
| 7  | <b>a)</b> $2^3 \times 3 \times 5^2$ <b>b)</b> $2^4 \times 3 \times 5^2$                                                                                               | 3     |
| 8  | <b>a)</b> 42 cm <b>b)</b> 5                                                                                                                                           | 3     |
| 9  | <b>candles)</b> 4 packs <b>holders)</b> 3 packs                                                                                                                       | 3     |
| 10 | <b>a)</b> 24 <b>b)</b> 360                                                                                                                                            | 4     |
| 11 | <b>a)</b> 180 only: 3, 5; both: 2, 2, 3; 84 only: 7 <b>b)</b> 12 <b>c)</b> 1260                                                                                       | 4     |
| 12 | <b>a)</b> all three: 2; 20 and 30 only: 5; 30 and 42 only: 3; 20 only: 2; 42 only: 7; 30 only: empty<br><b>b)</b> 2 <b>c)</b> 7 minutes                               | 4     |

Full worked solutions, written out by hand, are on the solutions sheet for this topic.