



| Q  | Answer                                                                                                                                     | Marks |
|----|--------------------------------------------------------------------------------------------------------------------------------------------|-------|
| 1  | <b>a)</b> 1, 2, 3, 4, 6, 9, 12, 18, 36 <b>b)</b> 7, 14, 21, 28, 35 <b>c)</b> 23, 31                                                        | 3     |
| 2  | Any multiple of 5 ending in 0, e.g. 10                                                                                                     | 2     |
| 3  | <b>a)</b> 1, 2, 4, 8 <b>b)</b> 24, 48, 72                                                                                                  | 3     |
| 4  | <b>a)</b> 6 <b>b)</b> 90                                                                                                                   | 3     |
| 5  | 8                                                                                                                                          | 3     |
| 6  | <b>a)</b> $2^2 \times 3^2 \times 5$ <b>b)</b> $2 \times 5^2 \times 7$                                                                      | 3     |
| 7  | Any valid pair, e.g. 21 and 28 ( $21 = 3 \times 7$ and $28 = 4 \times 7$ , and 3 and 4 share no common factor greater than 1, so HCF = 7). | 2     |
| 8  | <b>a)</b> $5 \mid 2, 2, 3 \mid 7$ <b>b)</b> 12 <b>c)</b> 420                                                                               | 4     |
| 9  | <b>a)</b> $2^2 \times 3 \times 5 = 60$ <b>b)</b> $2^3 \times 3^2 \times 5^2 = 1800$                                                        | 3     |
| 10 | <b>a)</b> $2 \times 3^2 \times 7$ <b>b)</b> 1260                                                                                           | 4     |
| 11 | <b>a)</b> $2^6 \times 7$ <b>b)</b> 56                                                                                                      | 4     |
| 12 | <b>a)</b> 24 packs of 2 pencils and 3 rulers <b>b)</b> 09:00                                                                               | 4     |

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