

## Factors

### Workout

Question 1:

- |                                |  |
|--------------------------------|--|
| (a) 1, 2, 4, 8                 | (b) 1, 2, 5, 10                              |
| (c) 1, 7                       | (d) 1, 2, 3, 4, 6, 12                        |
| (e) 1, 2, 4, 5, 10, 20         | (f) 1, 2, 11, 22                             |
| (g) 1, 2, 3, 6, 9, 18          | (h) 1, 2, 5, 10, 25, 50                      |
| (i) 1, 3, 5, 15                | (j) 1, 19                                    |
| (k) 1, 2, 3, 5, 6, 10, 15, 30  | (l) 1, 2, 4, 5, 10, 20, 25, 50, 100          |
| (m) 1, 2, 4, 8, 16, 32         | (n) 1, 2, 3, 4, 6, 8, 12, 24                 |
| (o) 1, 2, 3, 6, 7, 14, 21, 42  | (p) 1, 2, 4, 7, 14, 28                       |
| (q) 1, 2, 3, 6, 11, 22, 33, 66 | (r) 1, 2, 5, 7, 10, 14, 35, 70               |
| (s) 1, 3, 5, 9, 15, 45         | (t) 1, 2, 3, 4, 5, 6, 10, 12, 15, 20, 30, 60 |
| (u) 1, 5, 25                   |  |

Question 2:

- (a) no (b) yes (c) yes (d) no (e) yes (f) no (g) no

Question 3:

- (a) yes (b) no (c) no (d) no (e) yes (f) no (g) yes

Question 4:

- (a) 1, 2, 3, 4, 6, 7, 12, 14, 21, 28, 42, 84  
(b) 1, 2, 4, 5, 7, 10, 14, 20, 28, 35, 70, 140  
(c) 1, 2, 4, 5, 8, 10, 20, 25, 40, 50, 100, 200  
(d) 1, 2, 3, 4, 5, 6, 8, 10, 12, 15, 16, 20, 24, 30, 40, 48, 60, 80, 120, 240  
(e) 1, 5, 29, 145  
(f) 1, 2, 3, 4, 6, 8, 12, 16, 24, 32, 48, 64, 96, 192  
(g) 1, 2, 4, 61, 122, 244

Question 5:

- (a) no (b) yes (c) yes (d) yes (e) yes (f) no (g) no

## **Apply**

Question 1: 21- because 5 is not a factor of 21.

Question 2: 28- because 3 is not a factor of 28.

Question 3: 2 or 13

Question 4: No – square numbers have an odd number of factors. E.g. the factors of 9 are 1, 3, 9.