Prime Numbers: The Prime Number Code

Answers

Basic

1)   a) They are all multiples of 2

b) They are all multiples of 2 and 3

c) They are all multiples of 2

d) They are all multiples of 3

e) They are all multiples of 5

The numbers not coloured are all prime numbers.

Core

1)   a) They are all multiples of 2

b) They are all multiples of 2 and 3

c) They are all multiples of 2

d) They are all multiples of 3

e) They are all multiples of 5

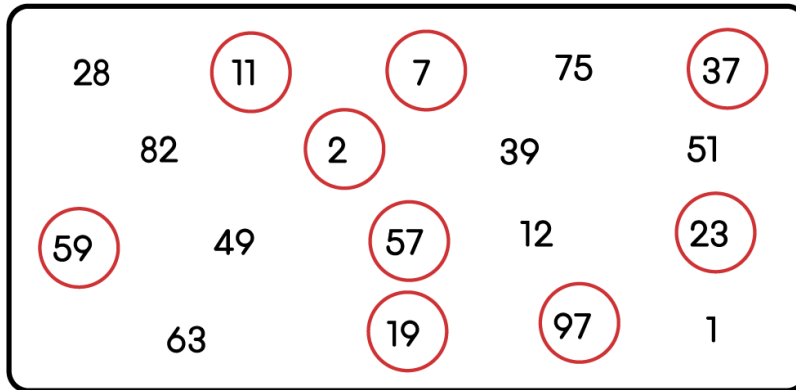The numbers not coloured are all prime numbers.

2)   a) 2 × 3 × 3 b) 3 × 3 × 3 × 3   c) 2 × 5 × 5   d) 2 × 2 × 2 × 3 × 3

e) 7 × 7   f) 2 × 2 × 5 × 5   g) 2 × 2 × 13   h) 2 × 2 × 2 × 3 × 5 × 5

Advanced

1)

28	(11)	(7)	75	(37)
82	(2)		39	51
(59)	49	(57)	12	(23)
63	(19)	(97)	1	

2) a) 2 × 3 × 3   b) 3 × 3 × 3 × 3   c) 2 × 5 × 5   d) 2 × 2 × 2 × 3 × 3
    e) 7 × 7   f) 2 × 2 × 5 × 5   g) 2 × 2 × 13   h) 2 × 2 × 2 × 3 × 5 × 5

3) a) 2×3^2 b) 3^4 c) 2×5^2 d) $2^3 \times 3^2$
    e) 7^2 f) $2^2 \times 5^2$ g) $2^2 \times 13$ h) $2^3 \times 3 \times 5^2$

4) a) 675   b) 1944   c) 845   d) 36,125
    e) 1400   f) 401,375   g) 6400   h) 5,768,419

5) a) $3^3 \times 7^2$ b) $5^2 \times 13^2$ c) $2^5 \times 3 \times 5^2$ d) $5^3 \times 17^2$
    e) $2^8 \times 3^4 \times 5$ f) $3^2 \times 5^2 \times 7^2$ g) $2 \times 3 \times 5 \times 7^3$ h) 13×17^2