

- 1 A train to town *A* leaves a station every 25 minutes.
A train to town *B* leaves the same station every 45 minutes.
Both trains leave at 08 00.

Find the next time both trains leave together.

..... [3]

[Total: 3]

- 2 Write down an irrational number with a value between 10 and 20.

..... [1]

[Total: 1]

- 3 Find the lowest common multiple (LCM) of 24 and 28.

..... [2]

[Total: 2]

4

61 62 63 64 65 66 67 68 69

From the list of numbers, write down

(a) a square number,

..... [1]

(b) a multiple of 13,

..... [1]

(c) a factor of 186,

..... [1]

(d) the prime numbers.

..... [2]

[Total: 5]

5

$$33\frac{1}{3}\%$$

π

$$\frac{1}{13}$$

$$343^{\frac{1}{3}}$$

$$\sqrt{3}$$

$$5.6 \times 10^{-7}$$

Two of the numbers in this list are irrational.

Put a ring around each of these irrational numbers.

[1]

[Total: 1]

6 Find the lowest common multiple (LCM) of 32 and 40.

..... [2]

[Total: 2]

- 7 Find the highest common factor (HCF) of $12a^3b$ and $20a^2b^2$.

..... [2]

[Total: 2]

- 8 Write 180 as a product of its prime factors.

..... [2]

[Total: 2]

- 9 f is a common factor of 14 and 28.
 m is a common multiple of 10 and 25.
 p is a prime number.

Work out the largest possible value of $\frac{f}{mp}$.

..... [4]

[Total: 4]

10 (a) Write 180 as a product of its prime factors.

..... [2]

10 (b) Find the lowest common multiple (LCM) of 160 and 180.

..... [2]

[Total: 4]

11 Find the lowest common multiple (LCM) of 30 and 75.

..... [2]

[Total: 2]

- 12** Udit thinks of two whole numbers.
 Both numbers are greater than 6.
 The lowest common multiple (LCM) of the two numbers is 90.
 The highest common factor (HCF) of the two numbers is 6.

Find the two numbers.

..... and [2]

[Total: 2]

- 13** Find the highest common factor (HCF) of 36 and 84.

..... [2]

[Total: 2]

- 14** Using the integers from 60 to 75 only, find

(a) a multiple of 17,

..... [1]

(b) the prime numbers.

..... [2]

[Total: 3]

15 Find the lowest common multiple (LCM) of 8 and 14.

..... [2]

[Total: 2]

16 Gerry and Alain run around a running track.

To run around the track once

- Gerry always takes 90 seconds
- Alain always takes 105 seconds.

They start together at the same point.

After how many minutes are they next together at that point?

..... min [3]

[Total: 3]