1 Find the highest common factor (HCF) of 12 and 20

....

(Total for Question 1 is 2 marks)

2 Find the lowest common multiple (LCM) of 6 and 8

....

(Total for Question 2 is 2 marks)

3 Find the highest common factor (HCF) of 15 and 18

....

(Total for Question 3 is 2 marks)

1

4 Find the lowest common multiple (LCM) of 9 and 12

....

(Total for Question 4 is 2 marks)

5 Find the highest common factor (HCF) of 28 and 35

....

(Total for Question 5 is 2 marks)

6 Find the lowest common multiple (LCM) of 15 and 20

....

(Total for Question 6 is 2 marks)

7 Find the highest common factor (HCF) of 16 and 40

....

(Total for Question 7 is 2 marks)

Solutions

8 Find the highest common factor (HCF) of 12, 18 and 21

....

(Total for Question 8 is 2 marks)

9 Find the lowest common multiple (LCM) of 10, 30 and 40

....

(Total for Question 9 is 2 marks)

10 Find the highest common factor (HCF) of 15, 30 and 45

....

(Total for Question 10 is 2 marks)

11 Find the lowest common multiple (LCM) of 5, 6 and 9

....

(Total for Question 11 is 2 marks)

Solutions

12 There are 120 students in Year 11 and 72 students in Year 10.

All of the students are split into groups for revision.
Year 11 students must not be in the same group as Year 10 students.
All of the group sizes must be the same.

Work out the maximum possible group size and how many groups there will be.

Maximum Group Size ....

Number of Groups ....

(Total for Question 12 is 4 marks)

13 The 90A bus and the 95B bus both stop at the bus station at 12:00pm.

90A returns to the station every 18 minutes
95B returns to the station every 8 minutes.

Work out the next time when both buses return to the station at the same time.

.... pm

(Total for Question 13 is 3 marks)

Solutions

14 Sophie checks her bike for repairs every 8 days
Susan check her bike for repairs every 6 days.

They both check their bikes on the 1ˢᵗ of May.
Work out the next date on which both Sophie and Susan check their bikes for repairs.

....

(Total for Question 14 is 3 marks)

15 Jason, Billy and Kim are running laps of an athletics track.

Jason runs each lap in 4 minutes.
Billy runs each lap in 6 minutes.
Kim runs each lap in 4 and a half minutes.

All three runners start running laps from the same point at 1:40 pm.

Work out the next time when all three runners will complete a lap together.

....

(Total for Question 15 is 3 marks)

Solutions

16 Find the highest common factor (HCF) of 63 and 135

....

(Total for Question 16 is 2 marks)

17 Find the lowest common multiple (LCM) of 63 and 135

....

(Total for Question 17 is 2 marks)

18 Find the highest common factor (HCF) of 84 and 140

....

(Total for Question 18 is 2 marks)

Solutions

19 Find the lowest common multiple (LCM) of 84 and 140

....

(Total for Question 19 is 2 marks)

20 Find the highest common factor (HCF) of 150 and 550

....

(Total for Question 20 is 2 marks)

21 Find the lowest common multiple (LCM) of 150 and 550

....

(Total for Question 21 is 2 marks)

22 Find the highest common factor (HCF) of 66 and 154

....

(Total for Question 22 is 2 marks)

23 Find the lowest common multiple (LCM) of 66 and 154

....

(Total for Question 23 is 2 marks)

24 Find the highest common factor (HCF) of 78 and 390

....

(Total for Question 24 is 2 marks)

Solutions

25 Find the lowest common multiple (LCM) of 78 and 390

....

(Total for Question 25 is 2 marks)

26 Find the highest common factor (HCF) of 102 and 136

....

(Total for Question 26 is 2 marks)

27 Find the lowest common multiple (LCM) of 102 and 136

....

(Total for Question 27 is 2 marks)

Solutions

28 $A = 2^3 \times 3 \times 5$
$B = 2 \times 3^2$

(a) Find the highest common factor (HCF) of A and B.
   Give your answer as an integer.

....

(2)

(b) Find the lowest common multiple (LCM) of A and B.
   Give your answer as an integer.

....

(2)

(Total for Question 28 is 4 marks)

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Solutions

29 $C = 2 \times 3 \times 5^2 \times 7$
$D = 2^2 \times 5 \times 13$

(a) Find the highest common factor (HCF) of C and D.
   Give your answer as an integer.

....

(2)

(b) Find the lowest common multiple (LCM) of C and D.
   Give your answer as an integer.

....

(2)

(Total for Question 29 is 4 marks)

30 $E = 2^{10} \times 3^4$
$F = 2^6 \times 3 \times 5^5$

(a) Find the highest common factor (HCF) of E and F.
Give your answer in index form.

....
(2)

(b) Find the lowest common multiple (LCM) of E and F.
Give your answer in index form.

....
(2)

(Total for Question 30 is 4 marks)

31 101 and 499 are prime numbers.

Work out the highest common factor (HCF) of 808 and 49900

....

(Total for Question 31 is 2 marks)

32 Sarah thinks of two integers that are both less than 100.

The highest common factor of Sarah's integers is 18
The lowest common multiple of Sarah's integers is 360

Work out the two integers that Sarah is thinking of.

....

(Total for Question 32 is 3 marks)

Solutions