Name:

Exam Style Questions

Lowest common multiples
Highest common factors

Corbettmαths

Ensure you have: Pencil, pen, ruler, protractor, pair of compasses and eraser

You may use tracing paper if needed

Guidance

1. Read each question carefully before you begin answering it.
2. Don't spend too long on one question.
3. Attempt every question.
4. Check your answers seem right.
5. Always show your workings

Revision for this topic

www.corbettmaths.com/contents

Video 218

Video 219

1.

12	28	100
40		64
35	6	18	38

From the box above, choose two numbers that:

(a) have a common factor of 10

40 and *100*

(1)

(b) have a common multiple of 24

6 and *12*

(1)

(c) have a common factor of 7

35 and *28*

(1)

(d) have a common multiple of 200

40 and *100*

(1)

2. A red light flashes every 6 seconds.
A yellow light flashes every 4 seconds.
They both flash at the same time.

After how many seconds will they next both flash at the same time?

6 12 18 24
4 8 12 16 20 24

24 ....seconds
(2)

3. Tilly the dog barks every 9 seconds.
Billy the dog barks every 12 seconds.
They both bark at the same time.

After how many seconds will they next bark at the same time?

9 18 27 36
12 24 36

36 ....seconds
(2)

4. A blue light flashes every 8 minutes while a pink light flashes every 54 minutes.
Both lights flash together at 2pm.

When is the next time that both lights will flash together again?

54 108 162 216 ✓

60
120
180 ✓
240

3 hars 36 mins
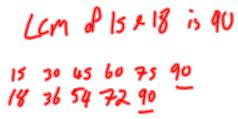
5:36pm
....
(2)

5. Mary is organising a charity hot dog sale.
There are 18 bread rolls in each packet.
There are 15 hot dogs in each packet.
Mary buys exactly the same number of bread rolls as hot dogs.

What is the smallest number of each packet that Mary can buy?

LCM of 15 & 18 is 90

15 30 45 60 75 90
18 36 54 72 90

5 .... packets of bread rolls

6 .... packets of hot dogs

(3)

6. Helen thinks of two numbers.
The Highest Common Factor (HCF) of her two numbers is 5
The Lowest Common Multiple (LCM) of her two numbers is a multiple of 12

Write down two possible numbers that Helen could be thinking of.

5 and 60 ✓   15 and 60 ✗

LCM   HCF   LCM   HCF
60   5   60   15

5 and 120 ✓
LCM   HCF
120   5

.... and ....

(2)

7. Trains leave Bristol

> to Cardiff every 15 minutes
> to London every 21 minutes

A train to Cardiff and a train to London both leave Bristol at 11am.

At what time will a train to Cardiff and a train to London next leave Bristol at the same time?

15   30   45   60   75   90   105
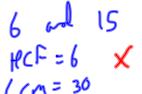21   42   63   84   105

12:45pm

(3)

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8. Trains to Portadown leave a train station every 28 minutes.
Trains to Portrush leave a train station every 16 minutes

A train to Portadown and a train to Portrush both leave the train station at 8am.

When will a train to Portadown and a train to Portrush both leave the train station at the same time?

28   56   84   112
16   32   48   64   80   96   112

9:52am

(3)

9. The Highest Common Factor (HCF) of two numbers is 6.
The Lowest Common Multiple (LCM) of the same numbers is 60.

What are the two numbers?

6 and 15   6 and 60 ✓
HCF = 6   ✗   HCF = 6
LCM = 30   LCM = 60

.... and ....

(2)

10. A red light flashes every 3 seconds.
A yellow light flashes every 8 seconds.
A green light flashes every 11 seconds
They all flash at the same time.

After how many seconds will they next all flash at the same time?

264

...........................seconds

(2)