

1.6 LEAST COMMON MULTIPLE

Essential Question: How can you find the least common multiple of 2 numbers?

What are the first 6 multiples of the following numbers?

1) 5 5 10 15 20 25 30 2) 8 8 16 24 32 40 48

Least Common Multiple (LCM) -> The smallest multiple that is shared by 2 or more numbers.

One way you can find the LCM of two or more numbers is by listing multiples

EXAMPLE 1

Find the least common multiple.

1) 9 and 12

Multiples of 9
9 18 27 36 45

Multiples of 12
12 24 36

LCM = 36

2) 6 and 10

Multiples of 6
6 12 18 24 30 36

Multiples of 10
10 20 30 40 50 60

LCM = 30

3) 16 and 20

Multiples of 16
16 32 48 64
80 96

Multiples of 20
20 40 60 80

LCM = 80

4) 14 and 18

Multiples of 14
14 28 42 56 70
84 98 112 126

Multiples of 18
18 36 54 72 90 108 126

LCM = 126

5) 28 and 36

Multiples of 28

28 56 84 112 140

168 196 224 252 280

Multiples of 36

36 72 108 144 180

216 252

LCM = 252

6) 24 and 90

Multiples of 24

24 48 72 96 120

144 168 192 216 240

264 288 312 336 360

Multiples of 90

90 180 270 360

LCM = 360

EXAMPLE 2

A traffic light changes every 30 seconds. Another traffic light changes every 40 seconds. Both lights just changed. After how many minutes will both lights change at the same time again?



Multiples of 30

30 60 90 120

Multiples of 40

40 80 120

Both lights will change again at the same time in 2 minutes