

Divisible? Write **YES** or **No** in the box

| | 132 | 3456 | 188 | 540 |
|----|-----|------|-----|-----|
| 2 | y | y | y | y |
| 3 | y | y | n | y |
| 4 | y | y | y | y |
| 5 | n | n | n | y |
| 6 | y | y | n | y |
| 9 | n | y | n | y |
| 10 | n | n | n | y |

Explain the divisibility rule for 3 using the number 234.

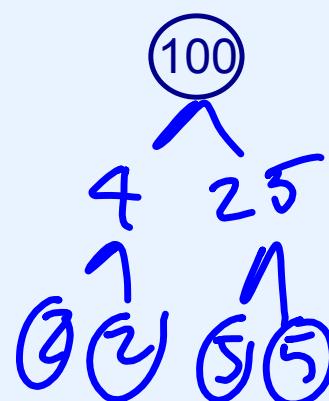
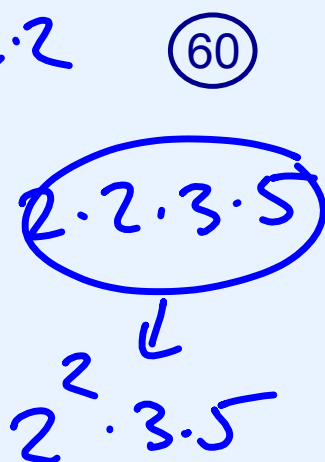
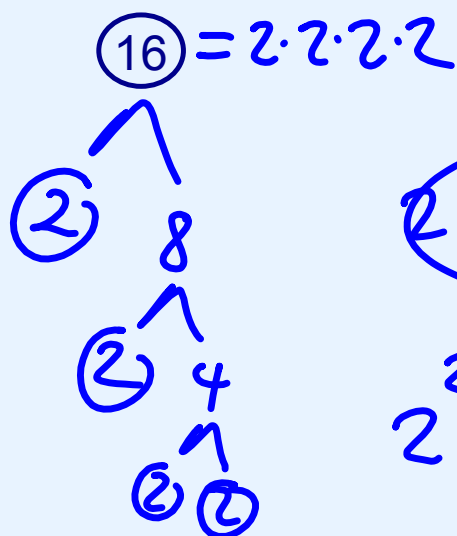
$$200 + 30 + 4$$

$$\begin{array}{l} 99+1 \\ 99+1 \end{array} \quad \begin{array}{l} 9+1 \\ 9+1 \\ 9+1 \end{array} \quad 4$$

Explain the divisibility rule for 2,5,10? Why do you only look at 1 place value?

?

Use factor trees to break each number into its prime factors.

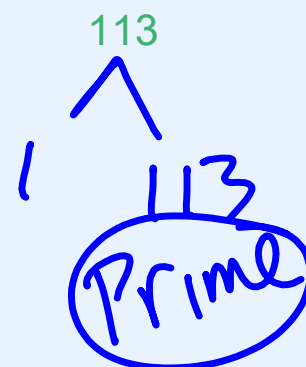


216

$$2^3 \times 3^3$$

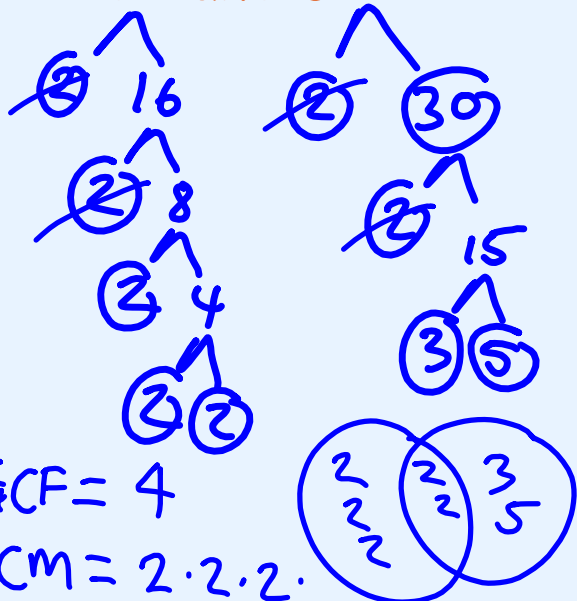
4000

$$2^5 \cdot 5^3$$



Find the GCF/LCM of the following number pairs using the prime factorization method.

32 and 60



GCF = 4

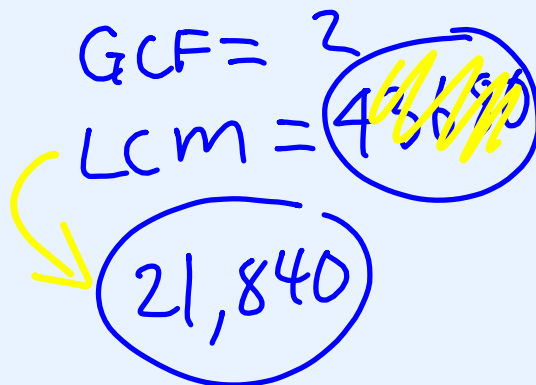
LCM = $2 \cdot 2 \cdot 2 \cdot 2 \cdot 2 \cdot 3 \cdot 5 = 480$

80 and 110

GCF = 10

LCM = 880

★ 182 and 240



GCF = 2

LCM = 21,840

21,840

75 and 30

GCF = 15

LCM = 300

Find 6 more factors of 240 using the Prime factorization method.

$$2 \times 2 \times 2 \times 2 \times 3 \times 5 = 240$$

$$2 - 2 \times 2 \times 2 \times 3 \times 5 \quad 120$$

$$3 - 2 \times 2 \times 2 \times 2 \times 5 \quad 80$$

$$5 - 2 \times 2 \times 2 \times 2 \times 3 \quad 48$$

$$4 \quad 2 \times 2 - 2 \times 2 \times 3 \times 5 \quad 60$$

$$6 \quad 2 \times 3 - 2 \times 2 \times 2 \times 5 \quad 40$$

$$10 \quad 2 \times 5 - 2 \times 2 \times 2 \times 3 \quad 24$$

$$15 \quad 3 \times 5 - 2 \times 2 \times 2 \times 2 \quad 16$$

1, 2, 3, 4, 5, 6, 8, 10, 12, 15, 16, 20,
24, 30, 40, 48, 60, 80, 120, 240

$$12 \quad 2 \times 2 \times 3 - 2 \times 2 \times 5 \quad 20$$

$$8 \quad 2 \times 2 \times 2 - 2 \times 3 \times 5 \quad 30$$

Represent the following numbers in as many ways as you can! (Include Prime factorization, expanded form, base 10 blocks, words and all 4 operations)

112

$$100 + 10 + 2$$



$$2 \times 56$$

one hundred twelve

$$10^2 + 12$$

$$5^3 - 13$$

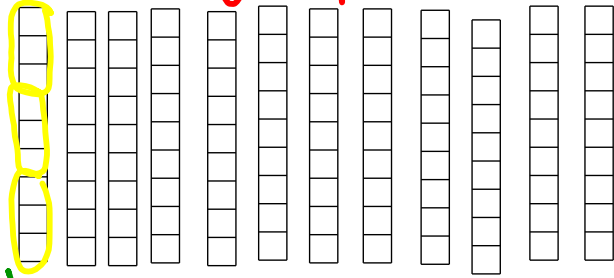
$$\frac{224}{2}$$

$$\frac{21}{7} \times 4 + 100$$

250

If 9 is a factor of 108 then 3 must also be a factor.

each group of 9 is 3 groups of 3



12 groups of 9 is 108

All multiples of 8 will also be multiples of 4

All groups of 8 are just 2 groups of 4

8 is 2-4's

16 is 4-4's

42 is common multiple of 2 and 7

7, 14, 21, 28, 35, 42

2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30

32, 34, 36, 38, 40, 42

if i count by 2's and 4's they meet at 42!

Xtra Practice

| GCF LCM | 36 | 70 | 306 | 210 |
|------------|----------------------------------|----|-----|-----|
| 60 | GCF of 36 & 60 LCM of 36 & 60 | | | |
| 42 | | | | |
| 204 | | | | |
| 150 | | | | |

Find ALL the factors of 360 using the prime factors

Put a check mark in the box if the number in the top row is divisible by the number in the left column

Xtra Practice

| | 346 | 522 | 2400 |
|---|--------------------------|--------------------------|--------------------------|
| 2 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |