Math in My World

Real World
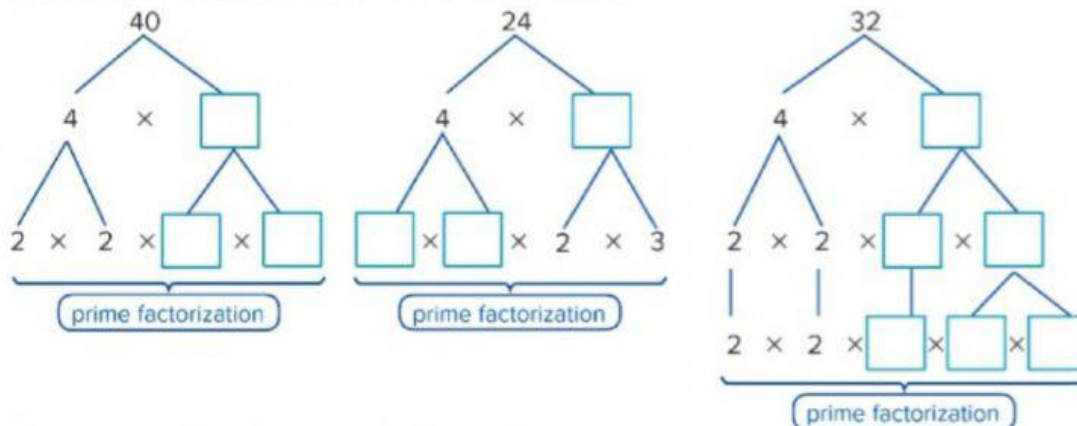
PROUD of YOU!

Example 1

Al Nahda Secondary School arranges their sports trophies in rows in a display case. There is an equal number of trophies in each row. Each row has only one kind of trophy. What is the greatest possible number of trophies in each row?

Trophies	
Type	**Number**
Volleyball	40
Football	24
Cricket	32

Write the prime factorization to find common factors.

40

4 × ☐

2 × 2 × ☐ × ☐

prime factorization

24

4 × ☐

☐ × ☐ × 2 × 3

prime factorization

32

4 × ☐

2 × 2 × ☐ × ☐

2 × 2 × ☐ × ☐ × ☐

prime factorization

The common prime factors are 2, 2, and 2.

Multiply to find the GCF.

_____ × _____ × _____ or _____

So, the greatest number of trophies that could be placed in each row is _____.

Test Practice

6. Rashid will share his collection with his friends so that they each receive the same number of cards. What is the greatest number of cards they will each receive?

Sports Cards	
Type	**Number**
Cricket	32
Football	24

Ⓐ 4 cards   Ⓒ 12 cards

Ⓑ 8 cards   Ⓓ 16 cards