Review for test:

① $35700 = 2 \cdot 2 \cdot 5 \cdot 5 \cdot 3 \cdot 7 \cdot 17$
$= 2 \cdot 2 \cdot 3 \cdot 5 \cdot 5 \cdot 7 \cdot 17$
} Prime Factorization

② $735 = 5 \cdot 3 \cdot 7 \cdot 7$
$1715 = 5 \cdot 7 \cdot 7 \cdot 7$

$GCF = 5 \cdot 7 \cdot 7$

$GCF = 245$

Review for test:

③ $450 = 2 \cdot 3 \cdot 3 \cdot 5 \cdot 5 \rightarrow 2^1 \cdot 3^2 \cdot 5^2$

$180 = 2 \cdot 2 \cdot 3 \cdot 3 \cdot 5 \rightarrow 2^2 \cdot 3^2 \cdot 5^1$

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

$LCM = 4 \cdot 9 \cdot 25$

LCM = 900

④ $9 = 3 \cdot 3$

$15 = 3 \cdot 5$

GCF = 3

Review for test:

⑤ $8 = 2 \cdot 2 \cdot 2 = 2^3$ LCM $= 2^3 \cdot 7$

$14 = 2 \cdot 7 = 2^1 \cdot 7^1$ LCM $= 8 \cdot 7$

LCM = 56 days

⑥ Volume = $9261\ in^3$ (Cube)

(i) Find length:

$l = \sqrt[3]{9261}$

$l = \sqrt[3]{3 \cdot 3 \cdot 3 \; 7 \cdot 7 \cdot 7}$

$l = 3 \cdot 7$

$l = 21\ in$

(ii) Find the surface Area

$A = 6(l \times w)$

$A = 6(21 \times 21)$

$A = 2646\ in^2$

⑥ Given: (Cube)

Surface Area = 13824 m^2

Volume = ?

Square:
$A = l \times w$ (sides are same)

Cube:
$V = l \times w \times h$ (sides are same)

$SA = 6(l \times w)$ (sides are same)

① Find Area:

$\text{Area} = \frac{13824\ m^2}{6}$

$\text{Area} = 2304\ m^2$

② Find side length

$l = \sqrt{2304}$

$l = \sqrt{2 \cdot 2 \cdot 2 \cdot 2 \cdot 2 \cdot 2 \cdot 2 \cdot 2 \cdot 3 \cdot 3}$

$l = 2 \cdot 2 \cdot 2 \cdot 2 \cdot 3$

$l = 48\ m$

③ $V = l \times w \times h$ (All sides are the same)

$V = 48 \cdot 48 \cdot 48$

$V = 110592\ m^3$

If it is an LCM Problem

- What is the question asking us?
- Do we have an event that is or will be repeating over and over?
- Will we have to purchase or get multiple items in order to have enough?
- Are we trying to figure out when something will happen again at the same time?
- **Will my answer be larger than the original numbers in the question?**

If it is a GCF Problem

- What is the question asking us?
- Do we have to split things into smaller sections?
- Are we trying to figure out how many people we can invite?
- Are we trying to arrange something into rows or groups?
- **Will my answer be the same or smaller than the original numbers in the question?**