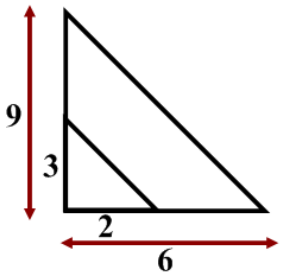
Don't forget about me!!

a reminder:
- Prime Factorization
- GCF
- LCM
- Perfect Squares
- Perfect Cubes
- mixed & Entire Radicals

1. If the surface area of a cube is 2646 cm^2, what is the volume?

2. Kayla's milk man comes every 9 days to deliver milk, and Mallory's comes every 12 days. Suppose both girls got milk delivered today. How many days will pass before both girls will have milk delivered on the same day?

3. 

a) By using the diagram prove that $3\sqrt{13} = \sqrt{117}$

b) Prove algebraically

4. Find the greatest common factor of 220, 308, 484

1. **If the surface area of a cube is 2646 cm^2, what is the volume?**

$6(l \times w)$

$6(s \times s)$

$6(s^2)$

$2646 \div 6 = 441$

$\sqrt{441}$

$\sqrt{3 \times 3 \times 7 \times 7}$

$3 \times 7 = 21$

$V = l \times w \times h$

$V = s \times s \times s$

$= 21 \times 21 \times 21$

$= 9261 \text{ cm}^3$

2. **Kayla's milk man comes every 9 days to deliver milk, and Mallory's comes every 12 days. Suppose both girls got milk delivered today. How many days will pass before both girls will have milk delivered on the same day?**

LCM

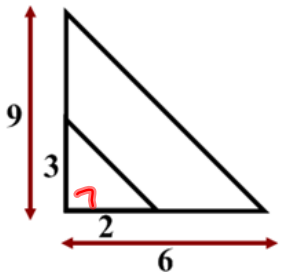
$9 \rightarrow 3 \times 3 \rightarrow 3^2$

$12 \rightarrow 2 \times 2 \times 3 \rightarrow 2^2 \times 3$

$2^2 \times 3^2$

$4 \times 9 = 36$ days

3.



a) By using the diagram prove that $3\sqrt{13} = \sqrt{117}$

b) Prove algebraically

$3\sqrt{13} = \sqrt{117}$

$\sqrt{13 \times 33} = \sqrt{117}$

$\sqrt{117} = \sqrt{117}$

3 to 1

$3\sqrt{13} = \sqrt{117}$

Small

$a^2 + b^2 = c^2$

$3^2 + 2^2 = c^2$

$9 + 4 = c^2$

$\sqrt{13} = c^2$

$c = \sqrt{13}$ +3

Bigger

$a^2 + b^2 = c^2$

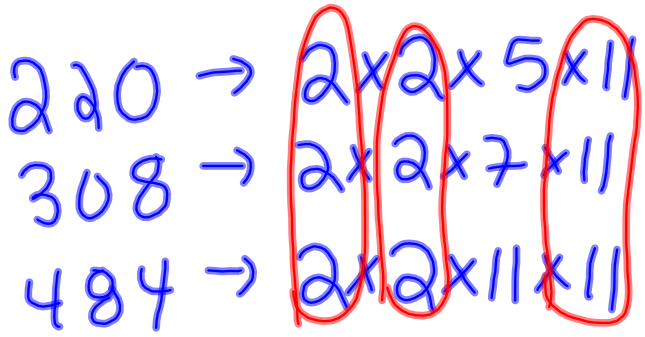
$9^2 + 6^2 = c^2$

$81 + 36 = c^2$

$\sqrt{117} = c^2$

$c = \sqrt{117}$

4. Find the greatest common factor of 220, 308, 484



2x2x11

= 44