



- 1) a) cuboid A: $6 \times 4 \times 3 = 72\text{cm}^3$
 b) cuboid B: $2 \times 8 \times 4 = 64\text{cm}^3$
 c) cuboid C: $9 \times 2 \times 3 = 54\text{cm}^3$
- 2) Cuboid A: $12 \times 2 \times 3 = 72\text{cm}^3$
 Cuboid B: $5 \times 4 \times 6 = 120\text{cm}^3$
 Cuboid C: $8 \times 7 \times 2 = 112\text{cm}^3$



- 1) Yes, Noah's method will always work because the order in which the multiplication is carried out has no effect on the answer. Choosing the most efficient order to multiply the numbers is an effective method to use.
- 2) Chelsea is correct. If all of Ada's side measurements were even numbers, the answer cannot be an odd number. This is because an even number \times even number \times even number = an even number.

For example:

$$4 \times 2 \times 8 = 64\text{cm}^3$$



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|--------------------------|--------------------------|--------------------------|
| 1) length = 3cm | length = 3cm | length = 3cm |
| width = 3cm | width = 5cm | width = 6cm |
| height = 8cm | height = 5cm | height = 4cm |
| volume = 72cm^3 | volume = 75cm^3 | volume = 72cm^3 |

- 2) Answers will vary. There are many possible answers including:

$$2 \times 15 \times 2 = 60\text{cm}^3 + 2 \times 10 \times 3 = 60\text{cm}^3$$

$$2 \times 7 \times 5 = 70\text{cm}^3 + 5 \times 5 \times 2 = 50\text{cm}^3$$

$$8 \times 5 \times 2 = 80\text{cm}^3 + 2 \times 10 \times 2 = 40\text{cm}^3$$

$$4 \times 10 \times 2 = 80\text{cm}^3 + 5 \times 4 \times 2 = 40\text{cm}^3$$

$$2 \times 25 \times 2 = 100\text{cm}^3 + 2 \times 2.5 \times 4 = 20\text{cm}^3$$