## Packaging

(1) Select the most appropriate sized box for each set of items.

C



(2) Here are the dimensions of a teddy bear.
Looking into the box from above, the bears are arranged like this


Sketch the net of the box needed to fit them in giving the dimensions.



The bears could also be arranged like this


Sketch the net of the box needed to fit them in giving the dimensions.


The first arrangement has a total area of $4,192 \mathrm{~cm}^{2}$ compared to a total area of $3,400 \mathrm{~cm}^{2}$ for the second arrangement so second is cheaper.
Which box would be cheaper to produce? Why?

## White <br> Maths <br> Packaging


$\longleftrightarrow 58 \mathrm{~cm}$



| 20 | $600 \mathrm{~cm}^{2}$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | $660 \mathrm{~cm}^{2}$ | $440 \mathrm{~cm}^{2}$ | $660 \mathrm{~cm}^{2}$ | 440 cm |
|  | $600 \mathrm{~cm}^{2}$ |  | 30 | 20 |

Total area $=3,400 \mathrm{~cm}^{2}$

