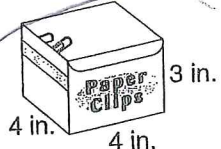


### Saving Trees

Boxes with different dimension can have the same volume. Marcus Manufacturing uses boxes to ship office supplies to stores. The less cardboard used to make a box, the ~~less~~ the box costs.

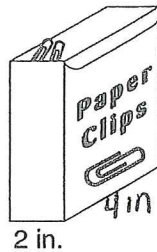
In each set, the boxes have equal volume. Find the volume of the first box, then find the missing dimension of the other boxes. Once all dimensions have been labeled, find the surface area of each box. Finally, circle the box that would cost the least amount of money to produce.

1. Volume =  $48 \text{ in}^3$

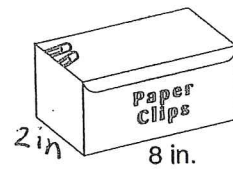


4 in. 4 in. 3 in.

Surface Area =  $80 \text{ in}^2$

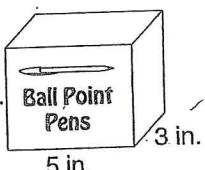


Height = 6 in  
Surface Area =  $88 \text{ in}^2$



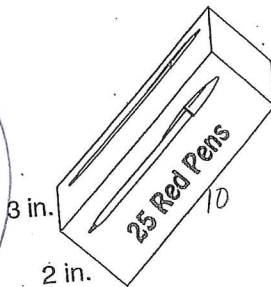
Height = 3 in.  
Surface Area =  $92 \text{ in}^2$

2. Volume =  $60 \text{ in}^3$

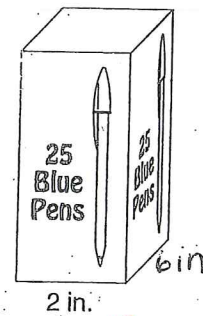


4 in. 5 in. 3 in.

Surface Area =  $94 \text{ in}^2$

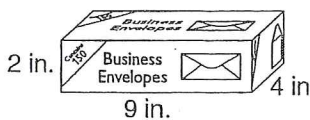


Height = 10 in.  
Surface Area =  $112 \text{ in}^2$

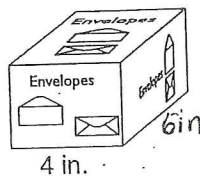


Height = 5 in  
Surface Area =  $104 \text{ in}^2$

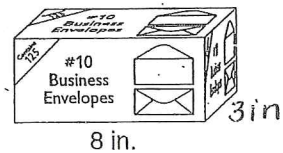
3. Volume =  $72 \text{ in}^3$



Surface Area =  $124 \text{ in}^2$



Height = 3 in.  
Surface Area =  $108 \text{ in}^2$



Height = 3 in.  
Surface Area =  $114 \text{ in}^2$