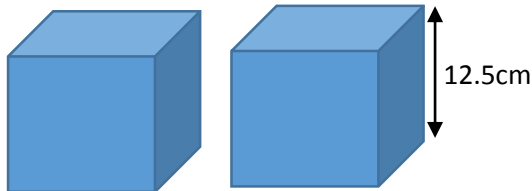


# Christmas Wrapping



Homer has a roll of wrapping paper 2m long and 75cm wide. He has to wrap the following presents for the family, does he have enough paper? Show all of your workings.

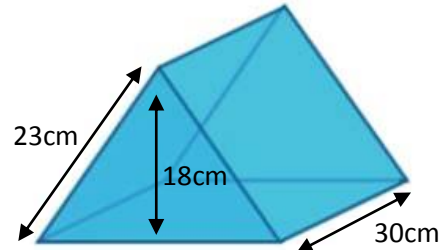
## Box of Celebrations x2



### CUBES

Side length - 12.5cm each

## Giant Toblerone

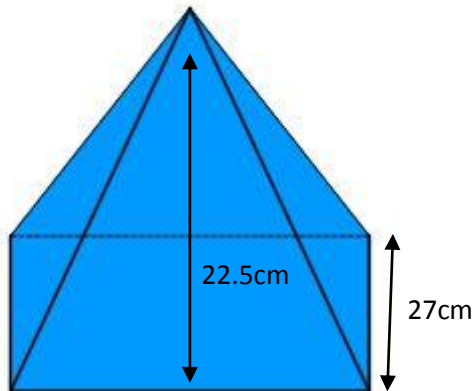


### Triangular Prism

Triangle base (equilateral) side length - 23cm

Height - 18cm and Prism length - 30cm

## Tower of Ferrero Rocher

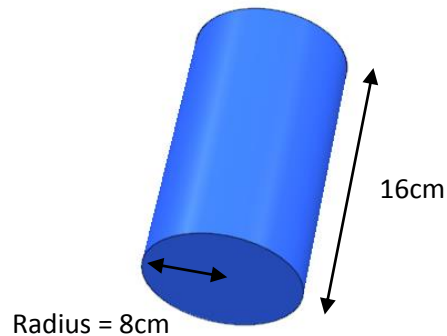


### Square Based Pyramid

Square base length - 27cm

Slant Height - 22.5cm

## Tube of Smarties



### Cylinder

Circular face radius - 8cm

Height - 16cm

Write the surface area of each present below:

Box of Celebrations

Giant Toblerone

Tower of Ferrero Rocher

Tube of Smarties



*Challenge: Can you decide if Homer has enough paper to wrap a giant chocolate orange ball with a radius of 24cm?*

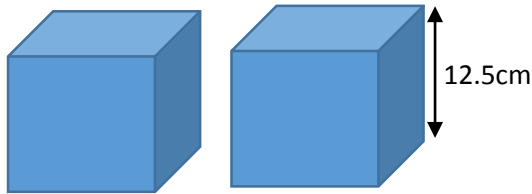


# Christmas Wrapping



Homer has a roll of wrapping paper 2m long and 75cm wide. He has to wrap the following presents for the family, does he have enough paper? Show all of your workings.

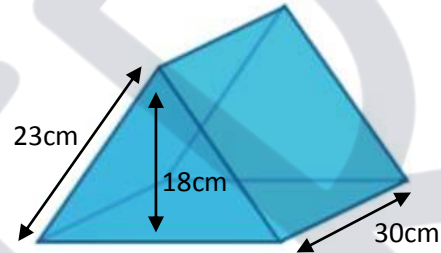
## Box of Celebrations x2



### CUBES

Side length - 12.5cm each

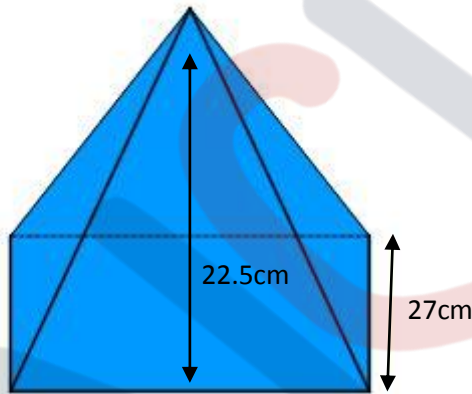
## Giant Toblerone



### Triangular Prism

Triangle base (equilateral) side length - 23cm  
Height - 18cm and Prism length - 30cm

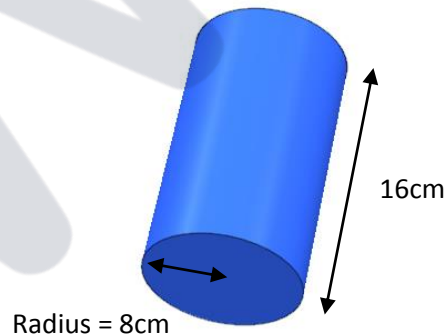
## Tower of Ferrero Rocher



### Square Based Pyramid

Square base length - 27cm  
Slant Height - 22.5cm

## Tube of Smarties



### Cylinder

Circular face radius - 8cm  
Height - 16cm

Write the surface area of each present below:

Box of Celebrations  $6 \times 12.5\text{cm}^2 = 937.5\text{cm}^2$  EACH ( $1562.5\text{cm}^2$  together)

Giant Toblerone  $2 \times (\frac{1}{2} \times 23 \times 18) + 3 \times (23 \times 30) = 414 + 2070 = 2484\text{cm}^2$

Ferrero Rocher  $27^2 + 4 \times (\frac{1}{2} \times 27 \times 22.5) = 1944\text{cm}^2$

Tube of Smarties  $2 \times (\pi \times 8^2) + 16 \times (\pi \times 16) = 402.12 + 804.25 = 1206.37\text{cm}^2$

**Total =  $7509.37\text{cm}^2$  (or  $7196.87\text{cm}^2$ )**

**Wrapping Paper =  $15,000\text{cm}^2$**



**Challenge: Yes -  $4 \times \pi \times 24^2 = 7238.23\text{cm}^2$**

