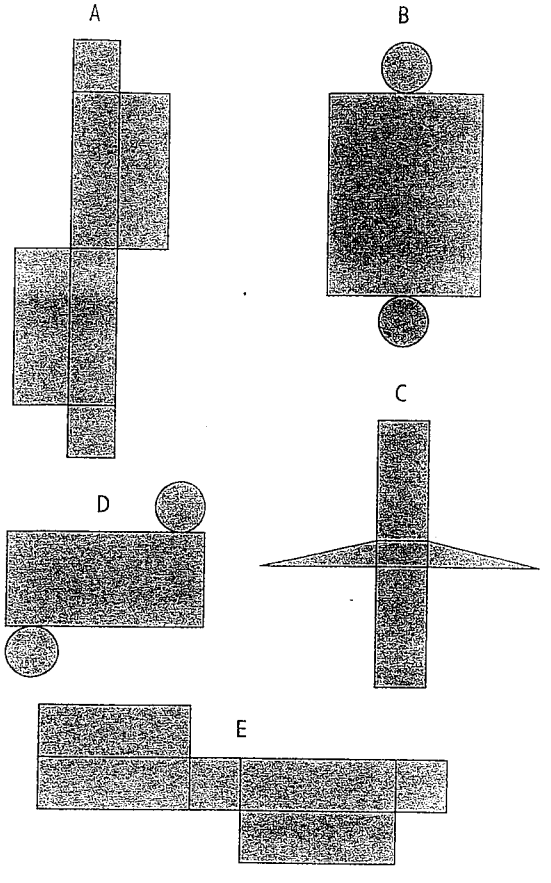
Grade 8 Surface Area Practice 1 Quiz

Name:

Block:

1. Look at the following cut-outs. What would the following shapes be as 3D objects? (Identify).



A. Rectangular Prism

B. Cylinder

C. Triangular Prism

D. Cylinder

E. Rectangular Prism

2. Find the Surface Area of the following shapes. (Show all calculations)

$A = L \times w$

$A = \frac{b \times h}{2}$

a. Top: $2 \times 9.9 = 19.8\text{cm}^2$

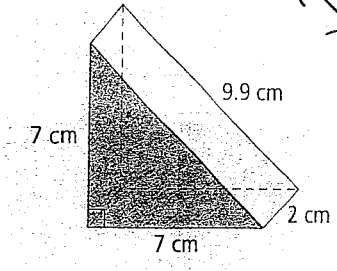
Bottom: $7 \times 2 = 14\text{cm}^2$

Back: $7 \times 2 = 14\text{cm}^2$

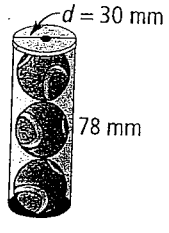
2 Triangles: $\frac{7 \times 7}{2} = \frac{49}{2} = 24.5 \times 2 = 49\text{cm}^2$

↑ 2 Triangles

Total Surface Area $96.8\ \text{cm}^2$



b.



$\pi = 3.14$

$A = \pi r^2$

$A = L \times w$

$C = \pi d$

Area of 2 circles:

$A = \pi \times r^2$ $A = 3.14 \times 15 \times 15 = 706.5\text{mm}^2$

$706.5 \times 2 = 1413\text{mm}^2$

Circumference of Circle:

$C = \pi d$ $C = 3.14 \times 30 = 94.2\text{mm}$

Area of Rectangle:

$94.2 \times 78 = 7{,}347.6\text{mm}^2$

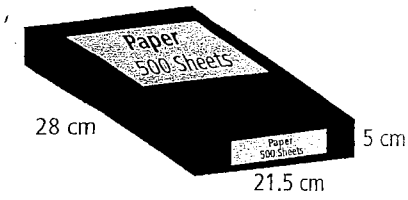
Total Surface Area $8760.6\ \text{mm}^2$

2 Circles 1413.0

Rectangles 7347.6

8760.6

c.



A = L x W

Top: $21.5 \times 28 = 602 cm^2$

Bottom: $21.5 \times 28 = 602 cm^2$

Front: $21.5 \times 5 = 107 cm^2$

Back: $21.5 \times 5 = 107 cm^2$

Left Side: $28 \times 5 = 140 cm^2$

Right Side: $28 \times 5 = 140 cm^2$

Total SA $1698 cm^2$

Draw below your vision of Xmas morning: