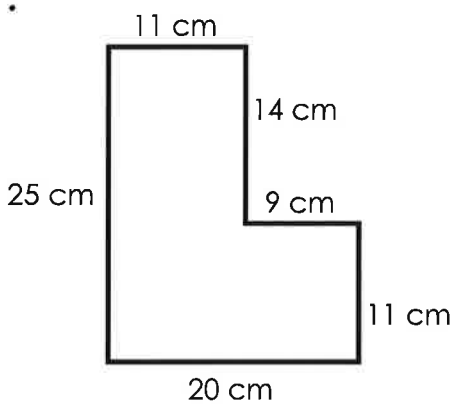
Name: _____

Area of an Irregular Shape

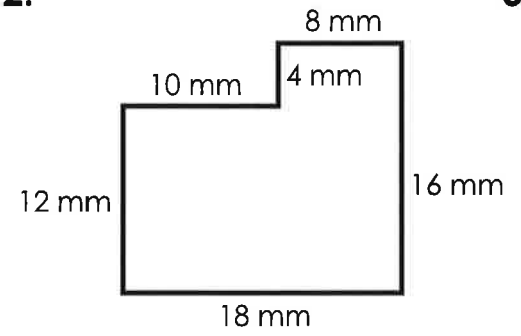
Find the area of each shape. Remember to include units in your answer.

1.



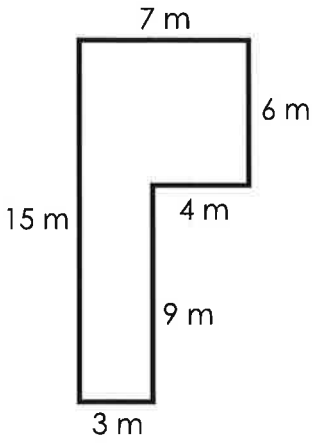
answer:_____

2.



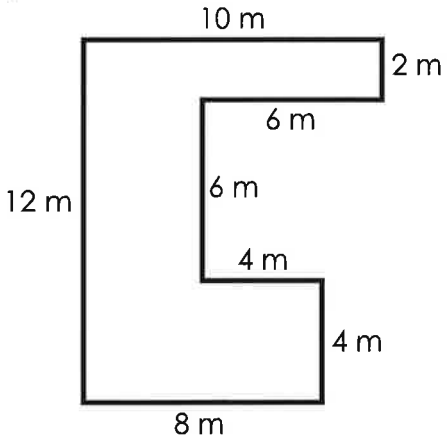
answer:_____

3.



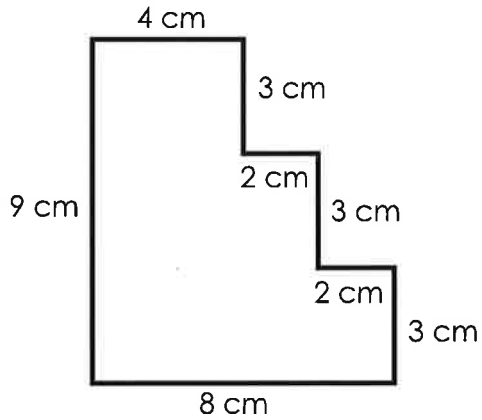
answer:_____

4.



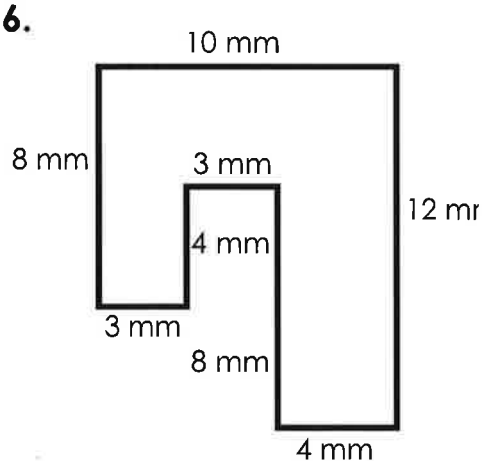
answer:_____

5.



answer:_____

6.



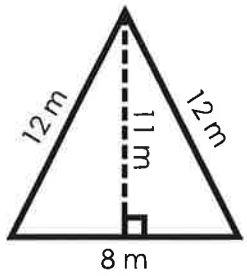
answer:_____

Name: _____

Area and Perimeter of a Triangle

Find the area and perimeter of each triangle.

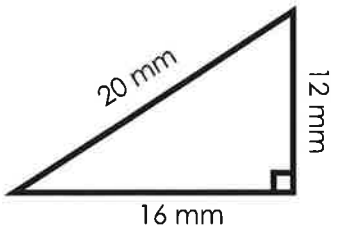
a.



area = _____

perimeter = _____

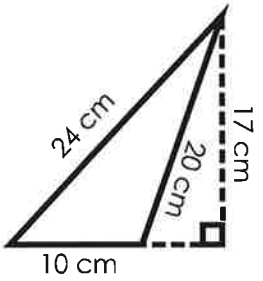
b.



area = _____

perimeter = _____

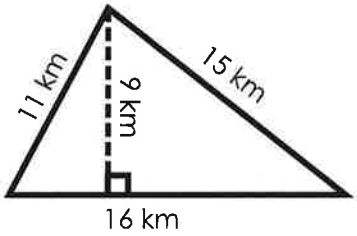
c.



area = _____

perimeter = _____

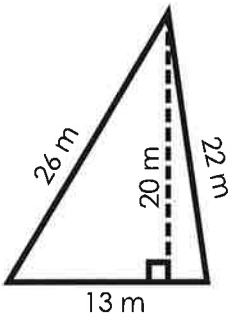
d.



area = _____

perimeter = _____

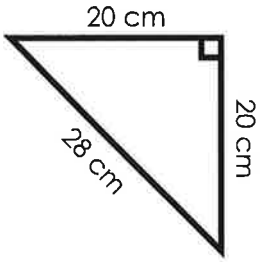
e.



area = _____

perimeter = _____

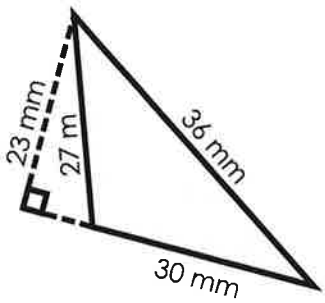
f.



area = _____

perimeter = _____

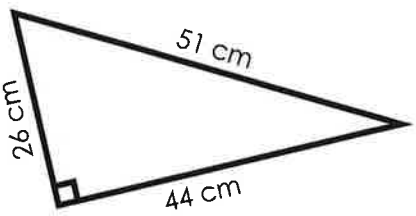
g.



area = _____

perimeter = _____

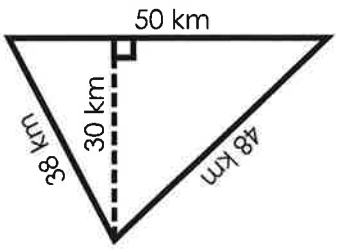
h.



area = _____

perimeter = _____

i.



area = _____

perimeter = _____

Name: _____

Area of Rectangles & Triangles

Area of a Triangle

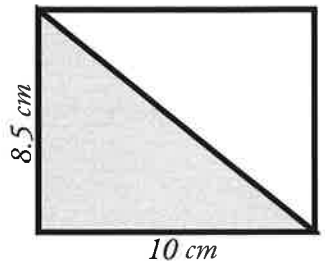
$\frac{1}{2} \times (b \times h) = A$

To find the area of a triangle, multiply **½ x base x height**.

Area of a Rectangle

$l \times w = A$

To find the area of a rectangle, multiply **length x width**.

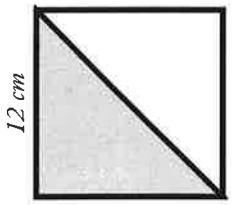


Area of the shaded triangle:
b = 10 cm
h = 8.5 cm
½ x 10 cm x 8.5 cm = 42.5 cm^2

Area of the rectangle:
l = 10 cm
w = 8.5 cm
10 cm x 8.5 cm = 85 cm^2

Find the area of each rectangle and shaded triangle.

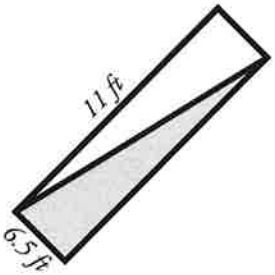
a.



area of the square = _____

area of the triangle = _____

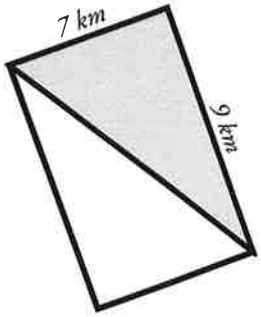
b.



area of the rectangle = _____

area of the triangle = _____

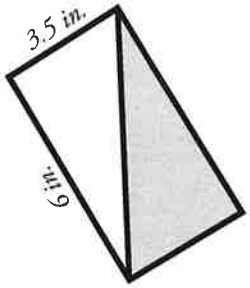
c.



area of the rectangle = _____

area of the triangle = _____

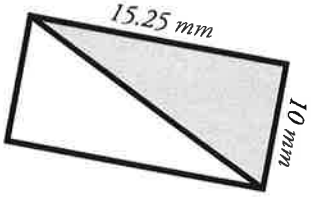
d.



area of the rectangle = _____

area of the triangle = _____

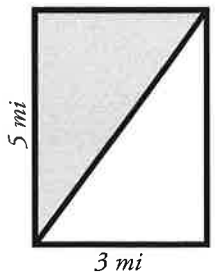
e.



area of the rectangle = _____

area of the triangle = _____

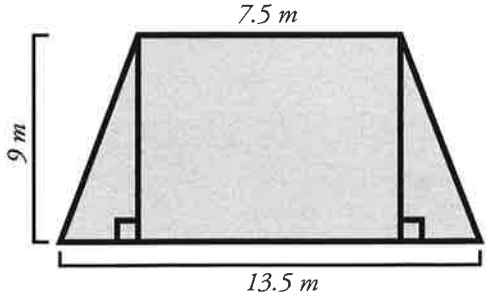
f.



area of the rectangle = _____

area of the triangle = _____

Challenge: Find the area of the polygon. Use the back if you need work space.

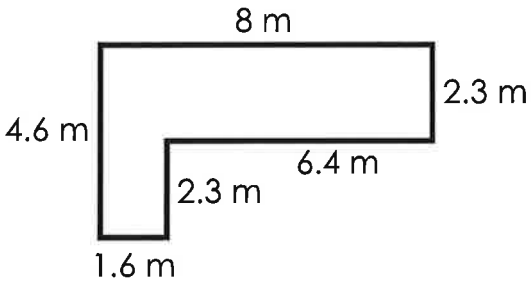


_____

Name: _____

Area of an Irregular Shape

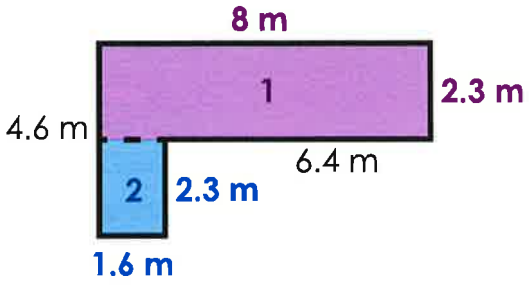
To find the area of an irregular shape made of two or more rectangles, cut the shape into two or more parts and add the area of each part.



Area of Rectangle 1:
$A = l \times w$
$A = 8 \times 2.3$
$A = 18.4 \text{ m}^2$

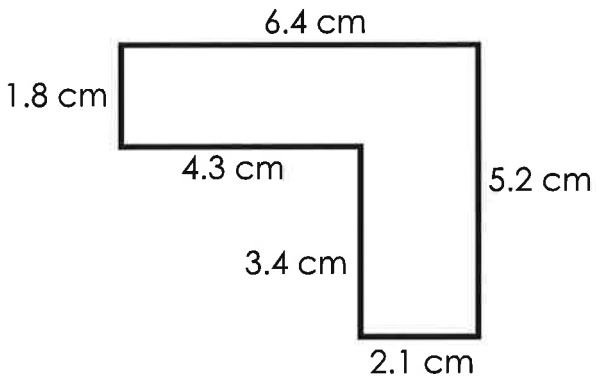
Area of Rectangle 2:
$A = l \times w$
$A = 1.6 \times 2.3$
$A = 3.68 \text{ m}^2$

Total Area:
$A = 18.4 \text{ m}^2 + 3.68 \text{ m}^2$
$A = 22.08 \text{ m}^2$

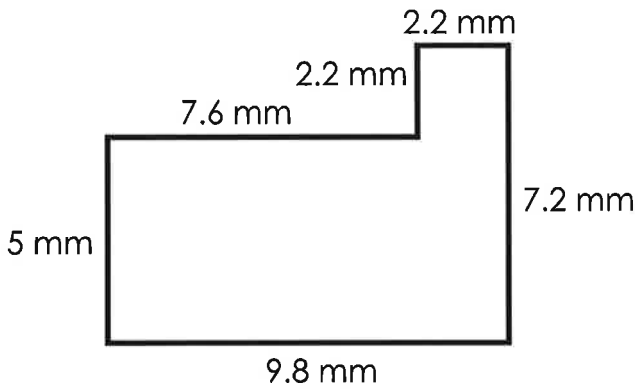


Find the area of each shape. Include units in your answer.

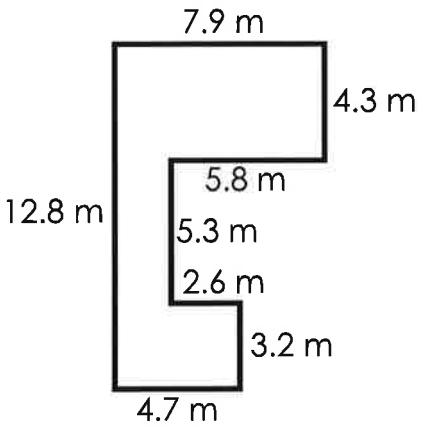
1.



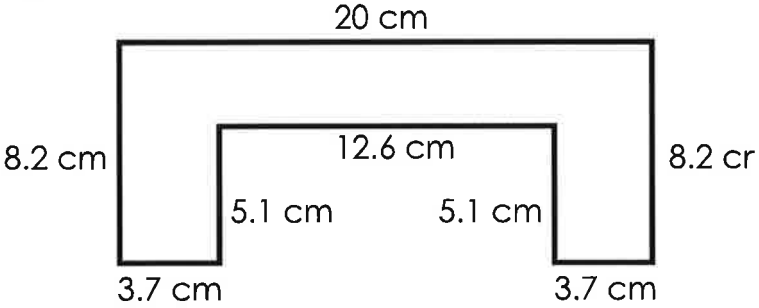
2.



3.



4.

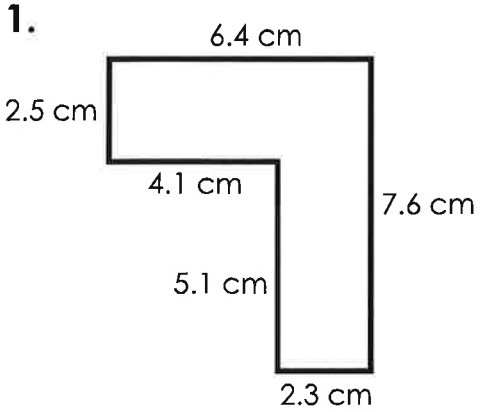


Name: _____

Area of an Irregular Shape

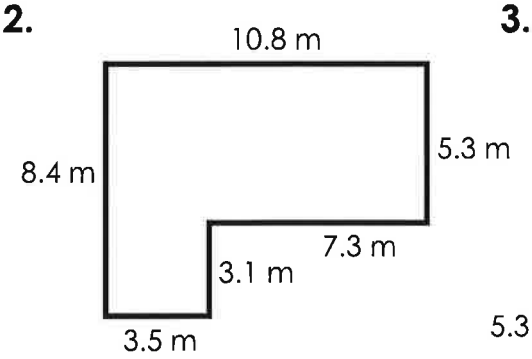
Find the area of each shape. Remember to include units in your answer.

1.



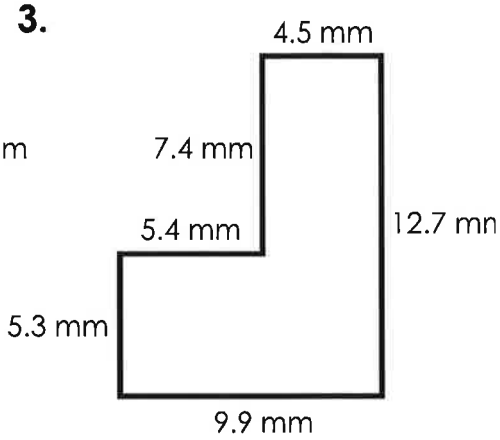
answer:_____

2.



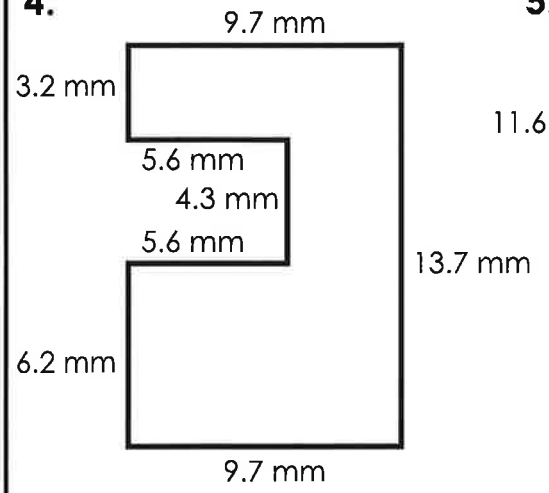
answer:_____

3.



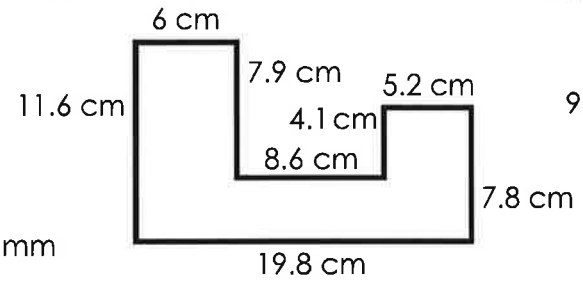
answer:_____

4.



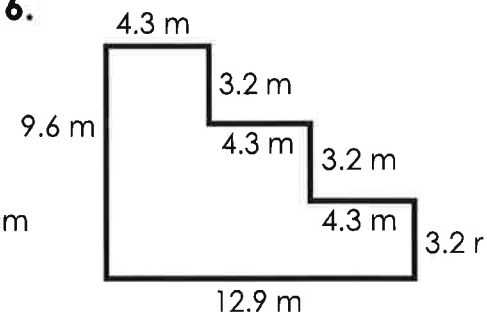
answer:_____

5.



answer:_____

6.

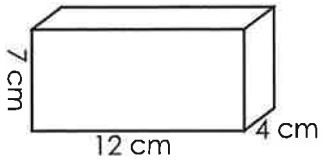


answer:_____

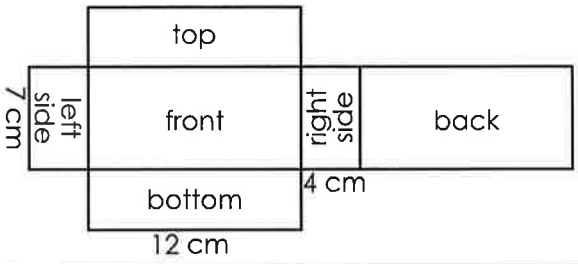
Name: _____

Surface Area

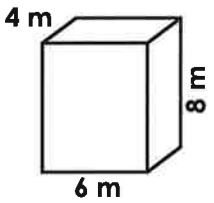
Surface area is the total area of all faces of a figure. To find the surface area of a rectangular prism, imagine it unfolded into six rectangles. Find the area of each rectangle and add them together. The sum is the surface area of the rectangular prism.



area of left side:	4 cm x 7 cm =	28 cm^2
area of top:	4 cm x 12 cm =	48 cm^2
area of front:	7 cm x 12 cm =	84 cm^2
area of bottom:	4 cm x 12 cm =	48 cm^2
area of right side:	4 cm x 7 cm =	28 cm^2
area of back:	7 cm x 12 cm =	+ 84 cm^2
	surface area =	**320 cm^2**



Find the surface area of the following figures.



area of left side: _____ x _____ = _____

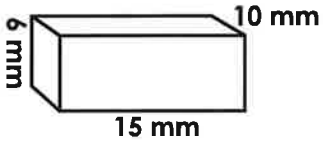
area of top: _____ x _____ = _____

area of front: _____ x _____ = _____

area of bottom: _____ x _____ = _____

area of right side: _____ x _____ = _____

area of back: _____ x _____ = _____ **surface area =** _____



area of left side: _____ x _____ = _____

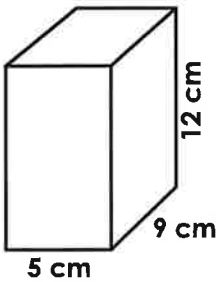
area of top: _____ x _____ = _____

area of front: _____ x _____ = _____

area of bottom: _____ x _____ = _____

area of right side: _____ x _____ = _____

area of back: _____ x _____ = _____ **surface area =** _____



area of left side: _____ x _____ = _____

area of top: _____ x _____ = _____

area of front: _____ x _____ = _____

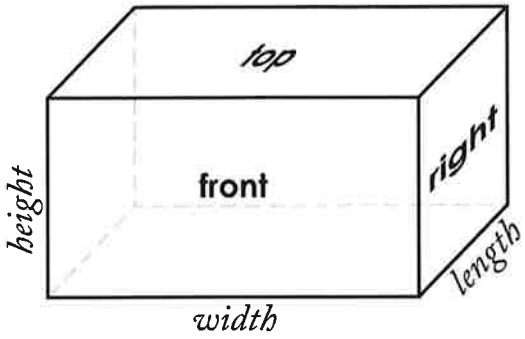
area of bottom: _____ x _____ = _____

area of right side: _____ x _____ = _____

area of back: _____ x _____ = _____ **surface area =** _____

Name: _____

Surface Area



area of **front** = $h \times w$
area of **back** = $h \times w$
area of **front** + **back** = $2(h \times w)$

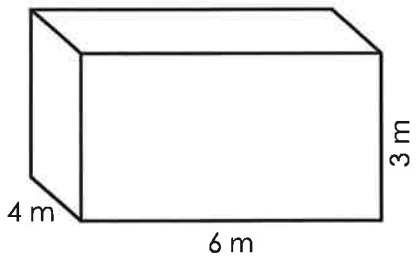
area of **top** = $w \times l$
area of **bottom** = $w \times l$
area of **top** + **bottom** = $2(w \times l)$

area of **right** = $l \times h$
area of **left** = $l \times h$
area of **right** + **left** = $2(l \times h)$

$$\textit{Surface Area} = 2(h \times w) + 2(w \times l) + 2(l \times h)$$

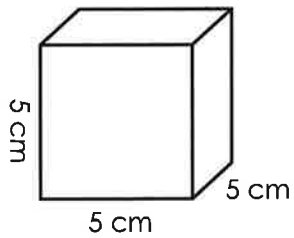
Calculate the *Surface Area* (*S.A.*) for each rectangluar prism by using the formula $S.A. = 2(h \times w) + 2(w \times l) + 2(l \times h)$

a.



a. _____

b.



b. _____

c. *length* = 14 mm
width = 9 mm
height = 20 mm

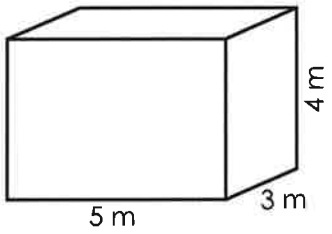
c. _____

Name: _____

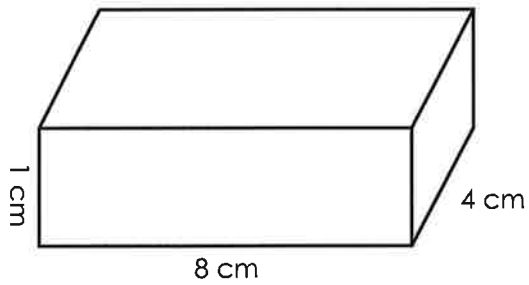
Surface Area

Find the surface area of the following figures.

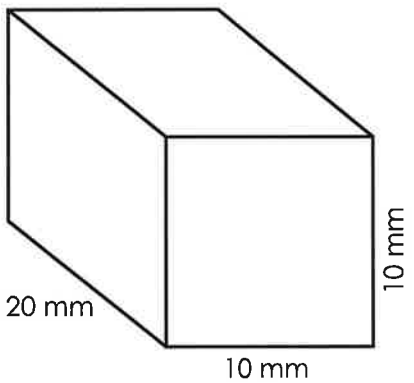
Work Space



surface area = _____



surface area = _____



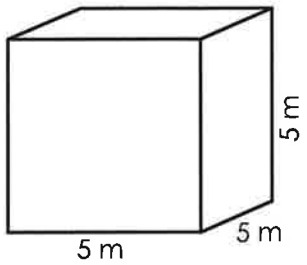
surface area = _____

Name: _____

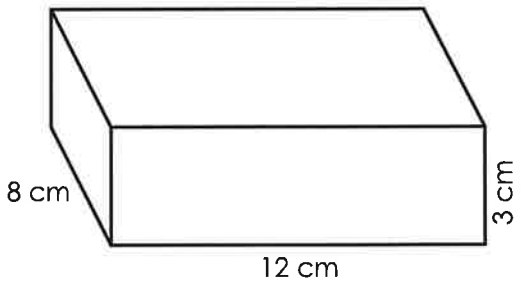
Surface Area

Find the surface area of the following figures.

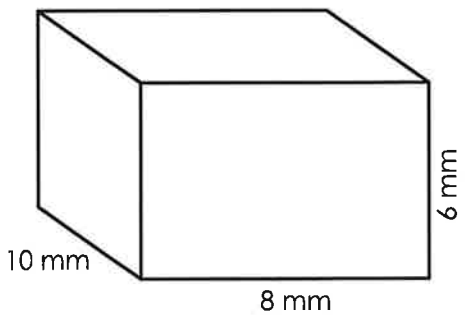
Work Space



surface area = _____



surface area = _____

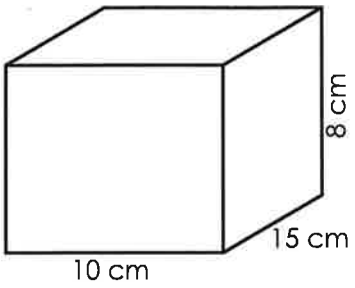


surface area = _____

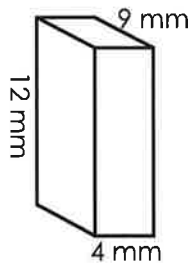
Name: _____

Surface Area

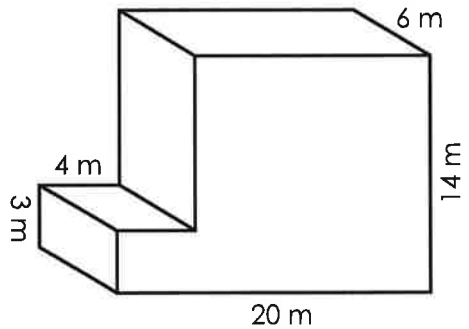
Find the surface area of the following figures.



surface area = _____



surface area = _____



surface area = _____

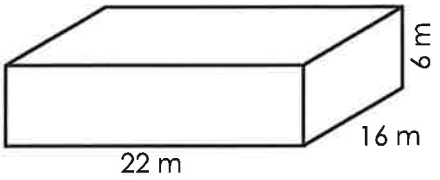
Work Space

Name: _____

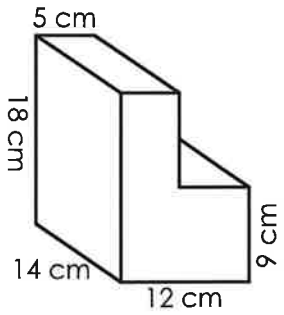
Surface Area

Find the surface area of the following figures.

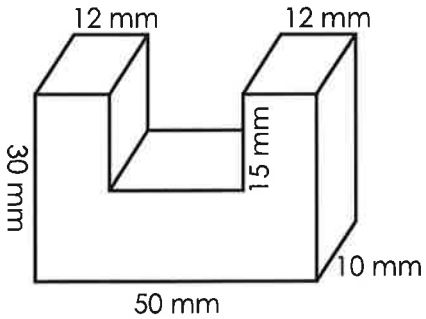
Work Space



surface area = _____



surface area = _____



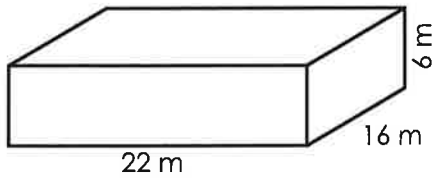
surface area = _____

Name: _____

Surface Area

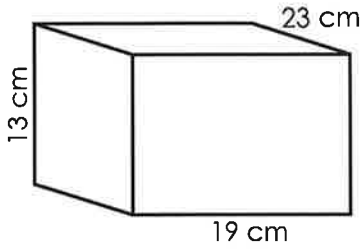
Find the surface area of the following figures.

a.



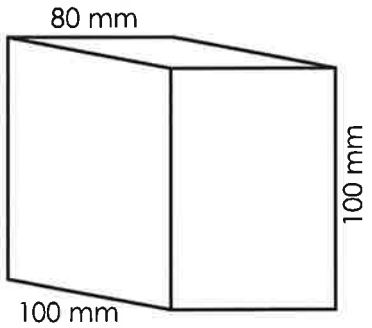
surface area = _____

b.



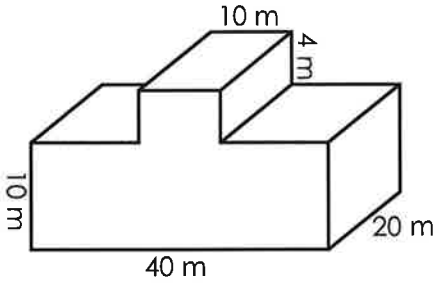
surface area = _____

c.



surface area = _____

d.



surface area = _____

e. A bar of soap has the following measurements: 25 mm x 34 mm x 10 mm. What is the total surface area of the bar of soap?

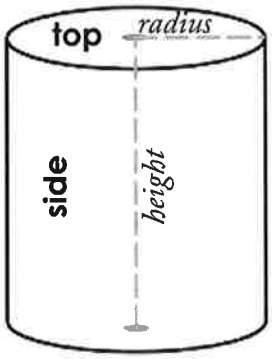
surface area = _____

f. The measurements for a television are 120 cm wide, 68 cm high, and 14 cm deep. What is the total surface area of the television?

surface area = _____

Name: _____

Surface Area of a Cylinder



$\pi = 3.14$

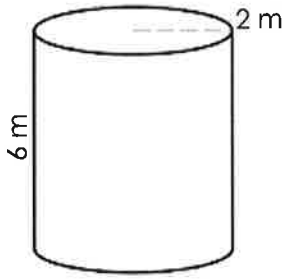
area of **top** = πr^2
area of **bottom** = πr^2
area of **top** + **bottom** = $2\pi r^2$

area of **side** = *circumferance* x *height*
circumferance = $2\pi r$
area of **side** = $2\pi rh$

$$\textbf{\textit{Surface Area}} = 2\pi r^2 + 2\pi rh$$

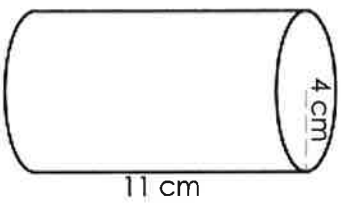
Calculate the *Surface Area* (*S.A.*) for each cylinder by using the formula $S.A. = 2\pi r^2 + 2\pi rh$. Use 3.14 for π.

a.



a. _____

b.



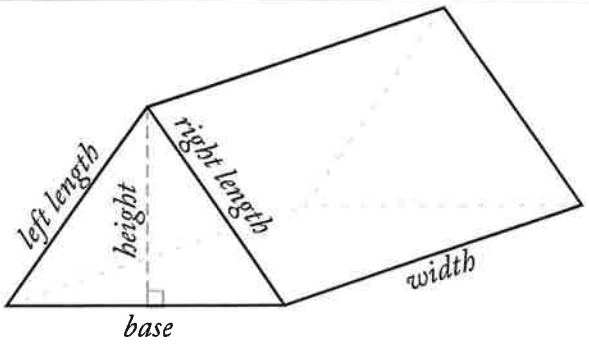
b. _____

c. *radius* = 12 mm
height = 3 mm

c. _____

Name: _____

Surface Area of a Triangular Prism



area of **front triangle** = $\frac{1}{2}(b \times h)$

area of **back triangle** = $\frac{1}{2}(b \times h)$

area of **front triangle** + **back trangle** = $b \times h$

area of **right side** = $right\ l \times w$

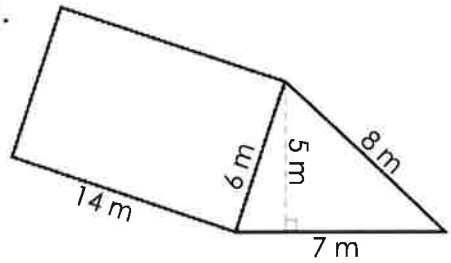
area of **left side** = $left\ l \times w$

area of **bottom** = $b \times w$

Surface Area = $(b \times h) + (right\ l \times w) + (left\ l \times w) + (b \times w)$

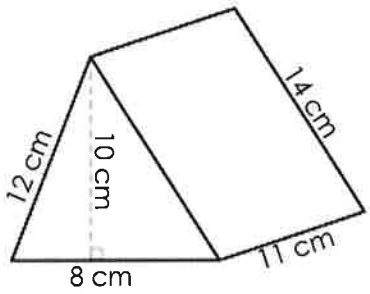
Calculate the *Surface Area* (*S.A.*) for each triangular prism by using the formula $S.A. = (b \times h) + (right\ l \times w) + (left\ l \times w) + (b \times w)$.

a.



a. _____

b.



b. _____

c. *base* = 20 mm
height = 15 mm
right length = 24 mm
left length = 18 mm
width = 30 mm

c. _____