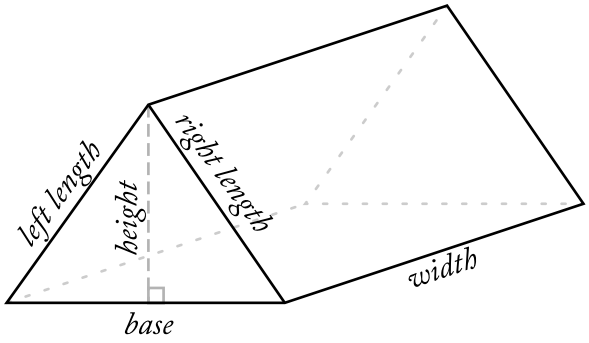
Name: _____

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** = $right\ l \times w$

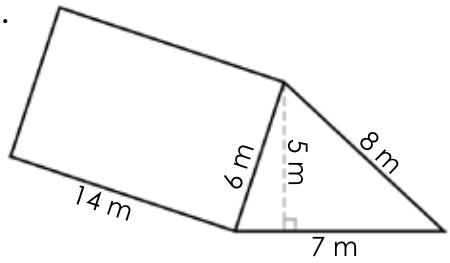
area of **left side** = $left\ l \times w$

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

$$\textbf{\textit{Surface Area}} = (b \times h) + (right\ l \times w) + (left\ l \times w) + (b \times w)$$

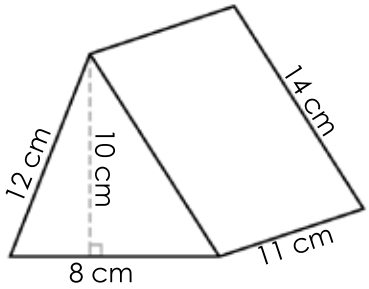
Calculate the *Surface Area* (*S.A.*) for each triangular prism by using the formula $S.A. = (b \times h) + (right\ l \times w) + (left\ l \times w) + (b \times w)$.

a.



a. _____

b.



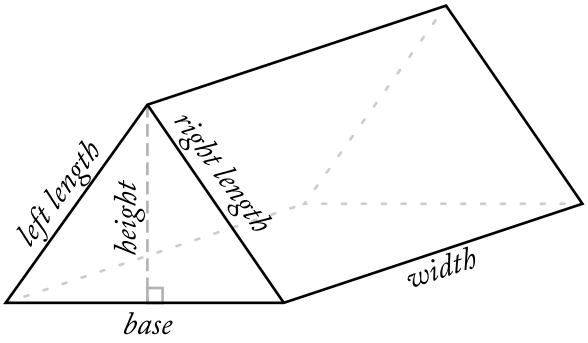
b. _____

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

c. _____

ANSWER KEY

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* x w

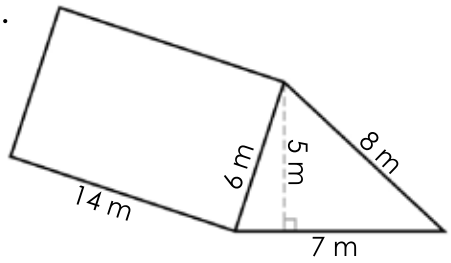
area of **left side** = *left l* x w

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.



S.A. = $(b \times h) + (right\ l \times w) + (left\ l \times w) + (b \times w)$

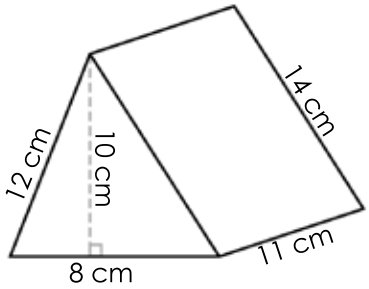
S.A. = (7 x 5) + (8 x 14) + (6 x 14) + (7 x 14)

S.A. = 35 + 112 + 84 + 98

S.A. = 329 m^2

a. *S.A.* = 329 m^2

b.



S.A. = $(b \times h) + (right\ l \times w) + (left\ l \times w) + (b \times w)$

S.A. = (8 x 10) + (14 x 11) + (12 x 11) + (8 x 11)

S.A. = 80 + 154 + 132 + 88

S.A. = 454 cm^2

b. *S.A.* = 454 cm^2

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

S.A. = $(b \times h) + (right\ l \times w) + (left\ l \times w) + (b \times w)$

S.A. = (20 x 15) + (24 x 30) + (18 x 30) + (20 x 30)

S.A. = 300 + 720 + 540 + 600

S.A. = 2,160 mm^2

c. *S.A.* = 2,160 mm^2