

Warm-Up
November 16, 2016

small

Big

front/back

x2

 2
 5
 $A = bh$
 $= 5 \times 2$
 $= 10$
 $\frac{x2}{20}$

sides

x2

 2
 3
 $A = bh$
 $= 3 \times 2$
 $= 6$
 $\frac{x2}{12}$

top/bottom

x2

 3
 5
 $A = bh$
 $= 5 \times 3$
 $= 15$
 $\frac{x2}{30}$

Total $20 + 12 + 30 = 62 \text{ cm}^2$

sides

x2

 8
 3
 $A = bh$
 $= 8 \times 3$
 $= 24$
 $\frac{x2}{48}$

front/back

x2

 8
 15
 $A = bh$
 $= 15 \times 8$
 $= 120$
 $\frac{x2}{240}$

top/bottom

x2

 3
 15
 $A = bh$
 $= 15 \times 3$
 $= 45$
 $\frac{x2}{90}$

Total $240 + 48 + 90 = 378$

$62 + 378 = 440$ total

Total - Overlap/Connections

$440 - 12 = 428 \text{ cm}^2$

3. B) small

(A)

T/B	sides	F/B	
$\boxed{x2} \ 2$ $\underline{\quad 2}$	$\boxed{x2} \ 1$ $\underline{\quad 2}$	$\boxed{x2} \ 1$ $\underline{\quad 2}$	
$A = bh$ $= 2 \times 2$ $= 4$ $\times 2$ $\underline{\quad 8}$	$A = bh$ $= 2 \times 1$ $= 2$ $\times 2$ $\underline{\quad 4}$	$A = bh$ $= 2 \times 1$ $= 2$ $\times 2$ $\underline{\quad 4}$	$= 16 \text{ cm}^2$

Middle

T/B	sides	F/B	
$\boxed{x2} \ 3$ $\underline{\quad 4}$	$\boxed{x2} \ 2$ $\underline{\quad 3}$	$\boxed{x2} \ 2$ $\underline{\quad 4}$	
$A = bh$ $= 4 \times 3$ $= 12$ $\times 2$ $\underline{\quad 24}$	$A = bh$ $= 3 \times 2$ $= 6$ $\times 2$ $\underline{\quad 12}$	$A = bh$ $= 4 \times 2$ $= 8$ $\times 2$ $\underline{\quad 16}$	$= 52 \text{ cm}^2$

Bottom

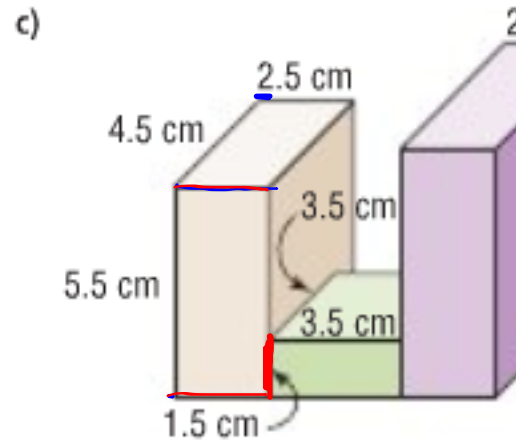
T/B	sides	F/B	
$\boxed{x2} \ 4$ $\underline{\quad 6}$	$\boxed{x2} \ 3$ $\underline{\quad 4}$	$\boxed{x2} \ 3$ $\underline{\quad 6}$	
$A = bh$ $= 6 \times 4$ $= 24$ $\times 2$ $\underline{\quad 48}$	$A = bh$ $= 4 \times 3$ $= 12$ $\times 2$ $\underline{\quad 24}$	$A = bh$ $= 6 \times 3$ $= 18$ $\times 2$ $\underline{\quad 36}$	

$108 + 52 + 16 = 176 \text{ cm}^2$

$\underline{\underline{32}}$
 144 cm^2

108 cm^2

$\begin{array}{l} \overline{\quad} \\ 2.5 \\ A = bh \\ = 2.5 \times 5.5 \\ = 13.75 \\ \times 2 \\ \hline 27.5 \end{array}$	$\begin{array}{l} \overline{\quad} \\ 4.5 \\ A = bh \\ = 4.5 \times 5.5 \\ = 24.75 \\ \times 2 \\ \hline 49.50 \end{array}$	$\begin{array}{l} \overline{\quad} \\ 4.5 \\ A = bh \\ = 4.5 \times 2.5 \\ = 11.25 \\ \times 2 \\ \hline 22.50 \end{array}$
$27.5 + 49.50 + 22.50 =$		



Middle

<p>F/B</p> $\begin{array}{l} \overline{\quad} \\ \times 2 \\ 1.5 \\ \hline 3.5 \end{array}$ <p>A = bh</p> $= 3.5 \times 1.5$ $= 5.25$ $\times 2$ $\hline 10.5$	<p>side</p> $\begin{array}{l} \overline{\quad} \\ \times 2 \\ 3.5 \\ \hline 1.5 \end{array}$ <p>A = bh</p> $= 1.5 \times 3.5$ $= 5.25$ $\times 2$ $\hline 10.5$	<p>T/B</p> $\begin{array}{l} \overline{\quad} \\ \times 2 \\ 3.5 \\ \hline 3.5 \end{array}$ <p>A = bh</p> $= 3.5 \times 3.5$ $= 12.25$ $\times 2$ $\hline 24.50$
$10.5 + 10.5 + 24.50 = 45.5$		

Right

<p>F/B</p> $\begin{array}{l} \overline{\quad} \\ \times 2 \\ 6.5 \\ \hline 2.5 \end{array}$ <p>A = bh</p> $= 2.5 \times 6.5$ $= 16.25$ $\times 2$ $\hline 32.5$	<p>side</p> $\begin{array}{l} \overline{\quad} \\ \times 2 \\ 5.5 \\ \hline 6.5 \end{array}$ <p>A = bh</p> $= 6.5 \times 5.5$ $= 35.75$ $\times 2$ $\hline 71.5$	<p>T/B</p> $\begin{array}{l} \overline{\quad} \\ 5.5 \\ \hline 2.5 \end{array}$ <p>A = bh</p> $= 2.5 \times 5.5$ $= 13.75$ $\times 2$ $\hline 27.5$
$32.5 + 71.5 + 27.5 = 131.5$		

= 45.5

Total - faces lost
 $276.5 - 10.5 - 10.5$

255.5 cm²

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 Homework... Worksheet
 144 cm^2 ← 255.5 cm^2

1. 2800 cm^2

2. 14750 cm^2

3.

4. 1796 cm^2

#5. 9200
 No floor
 OR
 9050
 [No door]