Key

Key Concepts: Surface Area of Rectangular Prism

$$SA = 2lh + 2lw + 2hw$$

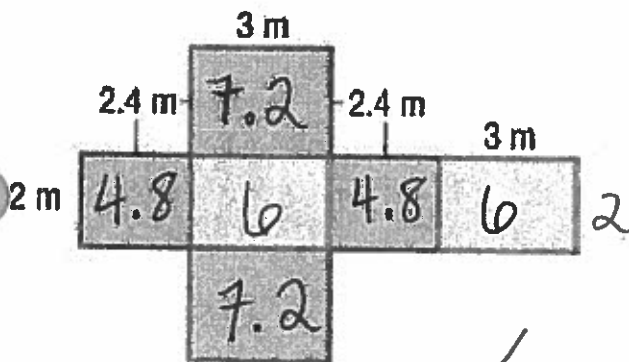The surface area of a prism is the ___sum___ of the areas of its faces.
*HINT: Find the area of each side, and then add them all up together.
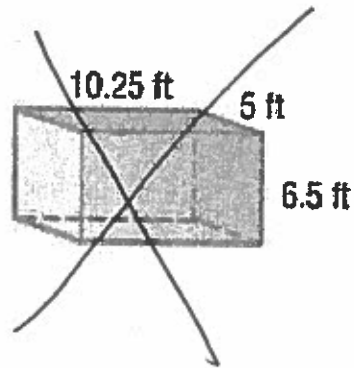
Step:
1. Write the formula.
2. Fill in the number.
3. Answer.

Guided Practice:
Find the surface area of each rectangular prism.
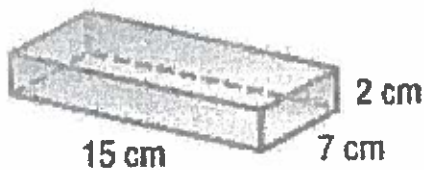

add the areas together!

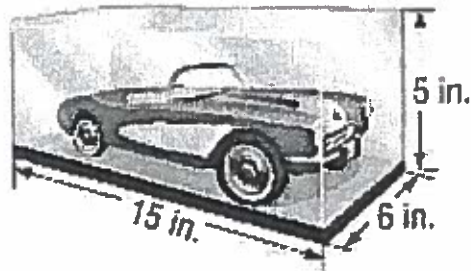$$SA = 4.8 + 4.8 + 7.2 + 7.2$$
$$+ 6 + 6$$

$$\boxed{SA = 36 \text{ m}^2}$$

Key

10.3 Surface Area of Rectangular Prisms (6.G.4)

$L=15 \quad w=7 \quad h=2$

$L=15 \quad w=6 \quad h=5$

2 cm
15 cm 7 cm

5 in.
15 in. 6 in.

Tomas keeps his die cast car in a glass display case as shown. What is the surface area of the glass, including the bottom?

$SA = 2lh + 2lw + 2hw$
$SA = 2 \cdot 15 \cdot 2 + 2 \cdot 15 \cdot 7 + 2 \cdot 2 \cdot 7$
$\quad\quad 60 \quad + \quad 210 + 28$

$SA = 298 \ cm^2$

$SA = 2lh + 2lw + 2hw$
$SA = 2 \cdot 15 \cdot 5 + 2 \cdot 15 \cdot 6 + 2 \cdot 5 \cdot 6$
$\quad\quad 150 + \quad 180 \quad + \quad 60$

$SA = 390 \ in^2$

Partner Talk
Find the surface area of a rectangle prism that has a length of 3 cm, a width of 5 cm, and a height of 4 cm.

$SA = 2lh + 2lw + 2hw$
$SA = 2 \cdot 3 \cdot 4 + 2 \cdot 3 \cdot 5 + 2 \cdot 4 \cdot 5$
$\quad\quad 24 \quad + \quad 30 \quad + \quad 40$

$SA = 94 \ cm^2$

Building on the Essential Question – What is the relationship between area and surface area?

Surface area is the area of all the surfaces (faces) of a 3D figure.

Rate Yourself – Are you ready to move on? Shade the section that applies.

I have a few questions. | I'm ready to move on.
I have a lot of questions.