Name_____ Date_____

Shape and Space
Unit 1 Line Master 7b

Answers

Answers may vary a little depending on rounding.

Area of triangles:
Determine height or notice Pythagorean triple 3, 4, 5.
h = 3 cm

$$2 \times \frac{1}{2}(12 \times 3) = 36$$

The area of the triangles is 36 cm^2.

Area of rectangles:
Determine width of one face.

$3^2 + 8^2 = c^2$

$9 + 64 = c^2$

$73 = c^2$

$c = \sqrt{73}$

$c \approx 8.54$

$15 \times 12 + 15 \times 5 + 15 \times 8.54$
$= 180 + 75 + 128.1$
$= 383.1$

The area of the rectangles is 383.1 cm^2.

The surface area of the triangular prism is 36 cm^2 + 383.1 cm^2, or 419.1 cm^2.