



KEY

NAME

DATE

PERIOD

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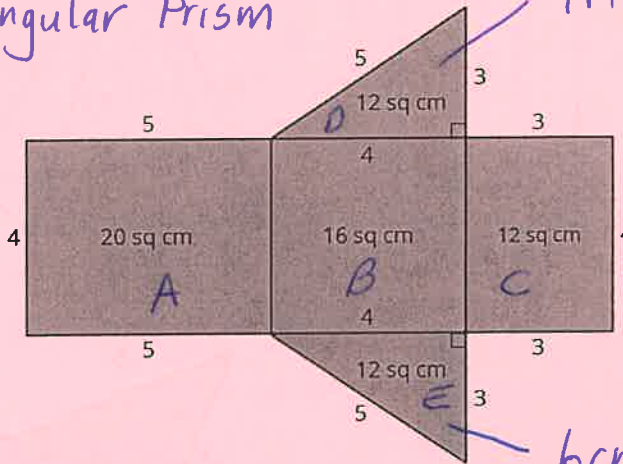
Unit 1, Lesson 15

Practice Problems

1. Jada drew a net for a polyhedron and calculated its surface area.

- a. What polyhedron can be assembled from this net?
- b. Jada made some mistakes in her area calculation. What were the mistakes?

Triangular Prism



Triangles should be 6 cm^2 she forgot to divide by 2

6 cm^2

c. Find the surface area of the polyhedron. Show your reasoning.

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$$20 + 16 + 12 + 6 + 6 = 60\text{ un}^2$$

A B C D E

2. A cereal box is 8 inches by 2 inches by 12 inches. What is its surface area? Show your reasoning. If you get stuck, consider drawing a sketch of the box or its net and labeling the edges with their measurements.



$$2(8 \cdot 12) - \text{Front + Back} \quad 192 \quad \uparrow$$

$$2(8 \cdot 2) - \text{Top + Bottom} \quad 32$$

$$2(2 \cdot 12) - \text{Sides} \quad \frac{48}{2} \quad 2$$

$$272\text{ in}^2$$

3. Twelve cubes are stacked to make this figure.



- a. What is its surface area? 36 un^2
- b. How would the surface area change if the top two cubes are removed?

2 sides	$6 + 6$	→	lose 2
steps	12	→	lose 2
back	6	→	lose 2
bottom	<u>6</u>	→	lose 0
	36 un^2		

6 un^2 squares less
so 30 un^2

12

