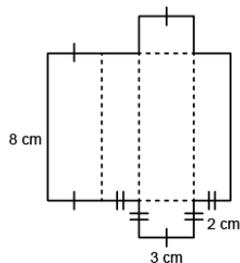# Activity 3 Assessment
Surface Area of Prisms and Pyramids

Using Nets to Determine Surface Area of Prisms and Pyramids
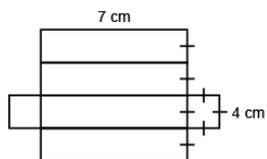
Uses nets to calculate surface area by adding the partial areas.

8 cm

2 cm

3 cm

"I added the partial areas:

Area of rectangle: 7 cm × 4 cm = 28 cm²
Area of 4 rectangles: 4 × 28 cm² = 112 cm²
Area of square: 4 cm × 4 cm = 16 cm²
Area of 2 squares: 2 × 16 cm² = 32 cm²
Surface area of prism: 112 cm² + 32 cm² = 144 cm²

Uses net to show relationship between areas of faces and surface area of prism/pyramid.

7 cm

4 cm

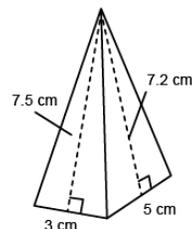Surface Area = Sum of the areas of the 3 pairs of congruent rectangles
SA = 2(8 cm × 3 cm) + 2(8 cm × 2 cm)
+ 2(2 cm × 3 cm)
= 2(24 cm²) + 2(16 cm²) + 2(6 cm²)
= 48 cm² + 32 cm² + 12 cm²
= 92 cm²

Determines surface area by visualizing net and adding the areas of its faces.

7.2 cm

7.5 cm

3 cm

5 cm

Surface Area = Area of rectangle + Sum of the areas of the 2 pairs of congruent triangles
SA = (3 cm × 5 cm) + 2(5 cm × 7.2 cm ÷ 2)
+ 2(3 cm × 7.5 cm ÷ 2)
= 15 cm² + 2(18 cm²) + 2(11.25 cm²)
= 15 cm² + 36 cm² + 22.5 cm²
= 73.5 cm²

Flexibly solves surface area problems by adding the areas of 2-D faces.

9 cm
10.3 cm
10 cm
10 cm

8 cm
9 cm
7 cm
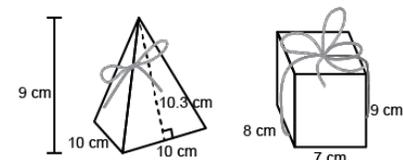
Which box would need less wrapping paper?

Square pyramid
SA = (10 cm × 10 cm) + 4(10 cm × 10.3 cm ÷ 2)
= 306 cm²

Rectangular prism
SA = 2(7 cm × 8 cm) + 2(7 cm × 9 cm) + 2(8 cm × 9 cm)
= 382 cm²

Observations/Documentation

Mathology 6
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