

8.9 Surface Area

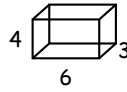
Chapter 8: Geometry and Measurement

Name: _____

Date: _____

Class/Period: _____

Problem 8.129 A rectangular prism measures $6 \times 4 \times 3$. Find its surface area.

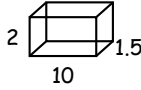


Problem 8.130 Find surface area of a cube with side 9.

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Problem 8.131 A rectangular prism measures $10 \times 2 \times 1.5$. Find its surface area.



Problem 8.133 A cube has surface area 216. Find side length.

Problem 8.134 A rectangular prism has $l = 10$, $w = 6$, $SA = 376$. Find height.

Problem 8.132 An open-top rectangular box measures $12 \times 7 \times 4$. Find the area of its five exterior faces.

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Problem 8.135 A triangular prism has an isosceles base with side lengths 5, 5, and 6, a perpendicular height of 4 to the side of length 6, and prism length 9. Find its surface area.

Problem 8.138 Explain the meaning of PL in $SA = 2B + PL$.

Problem 8.136 A square pyramid has base side 8 and face slant height 5. Find surface area.

Problem 8.139 If all dimensions double, predict the surface-area multiplier.

Problem 8.137 Explain why a net prevents missing a face.

Problem 8.140 If only prism length doubles, explain which face areas change.

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Problem 8.141 A closed aquarium measures $18 \times 10 \times 12$ inches. Find glass area. Then find glass area if the top is open.

Problem 8.143 A rectangular prism has volume 120 and dimensions 5, 4, and h . Find h and surface area.

Problem 8.142 A right-triangular prism has base sides 5, 12, 13 and length 20. Find surface area.

Problem 8.144 Two prisms have equal volume but different dimensions: $1 \times 6 \times 12$ and $2 \times 3 \times 12$. Compare surface areas.