

Name : _____

Ratio of Surface Areas and Volumes

Sheet 1

- 1) Determine the ratio of surface areas and the ratio of volumes, if the scale factor of cube P to cube Q is 3.2 : 2.7.

- 2) The scale factor of two similar triangular prisms is 8 : 9. Determine the ratio of their surface areas and the ratio of their volumes.

- 3) If two rectangular prisms are similar and the scale factor of their surface areas is 16 : 9, find the ratio of their volumes.

- 4) What are the ratio of surface areas and the ratio of volumes of two similar hexagonal prisms if the scale factor of their surface areas is 16 : 9?

- 5) If the ratio of corresponding side lengths of two similar rectangular prisms is 3 : 4, find the ratio of their surface areas and the ratio of their volumes.

- 6) Claire requires conical flasks of two different sizes for a titration experiment. If the scale factor of the flasks is 3 : 6.5, find the ratio of their surface areas and the ratio of their volumes.

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Ratio of Surface Areas and Volumes

- 1) P and Q are cubes with a scale factor of 3.2 : 2.7. Determine the ratio of their surface areas and the ratio of their volumes.

Ratio of surface areas is 10.24 : 7.29 ; Ratio of volumes is 32.768 : 19.683

- 2) The scale factor of two similar triangular prisms is 8 : 9. Determine the ratio of their surface areas and the ratio of their volumes.

- 3) If two rectangular prisms have a scale factor of 2 : 3, determine the ratio of their surface areas and the ratio of their volumes.

Ratio of surface areas is 4 : 9

Ratio of volumes is 8 : 27

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- 4) What are the ratio of their surface areas and the ratio of their volumes if the scale factor of two similar hexagonal prisms is 2 : 4?

Ratio of surface areas is 4 : 16

Ratio of volumes is 8 : 64

- 5) If the ratio of sides of two similar rectangular prisms is 2 : 5, determine the ratio of their surface areas and the ratio of their volumes.

Ratio of surface areas is 4 : 25

Ratio of volumes is 8 : 125

Ratio of surface areas is 4 : 25 ; Ratio of volumes is 8 : 125

- 6) Claire requires conical flasks of two different sizes for a titration experiment. If the scale factor of the flasks is 3 : 6.5, find the ratio of their surface areas and the ratio of their volumes.

Ratio of surface areas is 9 : 42.25 ; Ratio of volumes is 27 : 274.625