

Name _____

Scale factors

Find the new volume by using scale factors.

1) A cube has a volume of 27 cm^3 . If it is enlarged by a scale factor of 2, what is the new volume?	2) A sphere has a volume of $36\pi \text{ cm}^3$. If it is enlarged by a scale factor of 3, what is the new volume in π ?
3) A cylinder has a volume of 100 cm^3 . If it is enlarged by a scale factor of 1.5, what is the new volume?	4) A cone has a volume of $50\pi \text{ cm}^3$. If it is enlarged by a scale factor of 2.5, what is the new volume in π ?
5) A rectangular prism has a volume of 120 cm^3 . If it is enlarged by a scale factor of 4, what is the new volume?	6) A pyramid has a volume of 48 cm^3 . If it is enlarged by a scale factor of 2, what is the new volume?
7) A cube has a volume of 64 cm^3 . If it is reduced by a scale factor of 0.5, what is the new volume?	8) A sphere has a volume of $144\pi \text{ cm}^3$. If it is reduced by a scale factor of 0.75, what is the new volume in π ?
9) A cylinder has a volume of 250 cm^3 . If it is reduced by a scale factor of 0.6, what is the new volume?	10) A cone has a volume of $75\pi \text{ cm}^3$. If it is reduced by a scale factor of 0.8, what is the new volume in π ?