

Area and Volume Scale Factors *fluency*

ANSWERS



The length scale factor is given. Find the area scale factor.

1 3 9

2 5 25

3 1.5 2.25

4 $\frac{1}{2}$ 0.25

5 $\frac{2}{3}$ $\frac{4}{9}$

6 10 100



The length scale factor is given. Find the volume scale factor.

7 2 8

8 4 64

9 1.5 3.375

10 $\frac{1}{3}$ $\frac{1}{27}$

11 $\frac{5}{2}$ 15.625

12 0.1 0.001



Two similar shapes. Find the area of the larger shape.

13 lengths 4 and 10 cm, area 12 cm²
75 cm²

14 lengths 3 and 6 cm, area 20 cm²
80 cm²

15 lengths 5 and 15 cm, area 8 cm²
72 cm²

16 lengths 2 and 7 cm, area 12 cm²
147 cm²

17 lengths 6 and 9 cm, area 20 cm²
45 cm²

18 lengths 10 and 25 cm, area 40 cm²
250 cm²



Two similar solids. Find the length on the larger solid.

19 volumes 16 and 54 cm³, length 6 cm
9 cm

20 volumes 8 and 125 cm³, length 4 cm
10 cm

21 volumes 5 and 40 cm³, length 3 cm
6 cm

22 volumes 27 and 64 cm³, length 9 cm
12 cm

23 volumes 1 and 343 cm³, length 2 cm
14 cm

24 volumes 24 and 81 cm³, length 10 cm
15 cm



Two similar solids. Find the volume of the larger solid.

25 areas 20 and 45 cm², volume 40 cm³
135 cm³

26 areas 9 and 36 cm², volume 15 cm³
120 cm³

27 areas 16 and 100 cm², volume 24 cm³
375 cm³

28 areas 12 and 27 cm², volume 32 cm³
108 cm³

29 areas 50 and 72 cm², volume 125 cm³
216 cm³

30 areas 4 and 49 cm², volume 16 cm³
686 cm³