

Name : \_\_\_\_\_

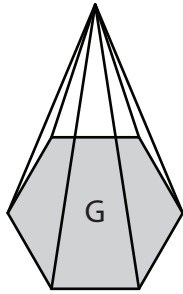
## Scale Factors - Surface Areas

L1S1

Each pair of figures is similar. Find the missing surface area. (SA denotes Surface area)

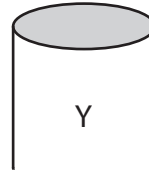
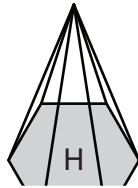
1) Scale factor of G to H is 5 : 1

2) Scale factor of Z to Y is 7 : 1.2

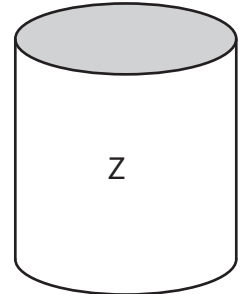


SA = ?

Surface area of figure



Y



Z

SA = 98 in<sup>2</sup>

Surface area of figure Y = \_\_\_\_\_

3) Scale factor of L to M is 1 : 2



SA = ?

Surface area of figure

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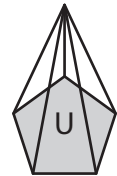
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Surface area of figure M is 48 in<sup>2</sup>

Scale factor of figure T to U is 0.7 : 4.1



SA = 5.88 ft<sup>2</sup>

Surface area of figure T = \_\_\_\_\_

5) S and T are similar hexagons. The surface area of S is 144 square feet. The surface area of T is 36 square feet. What will be the surface area of S if the surface area of T is 144 square feet?

What will be the surface area of T if the surface area of S is 144 square feet?

\_\_\_\_\_

6) The scale factor of two similar figures is 3.3 : 8. Find the surface area of the smaller figure, if the surface area of the larger figure is 6,400 square yards.

\_\_\_\_\_

Name : \_\_\_\_\_

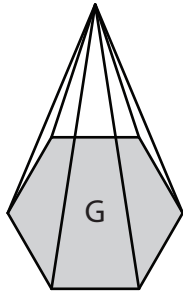
## Answer key

### Scale Factors - Surface Areas

L1S1

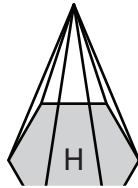
Each pair of figures is similar. Find the missing surface area. (SA denotes Surface area)

1) Scale factor of G to H is 5 : 1



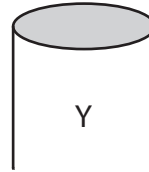
SA = ?

Surface area of figure

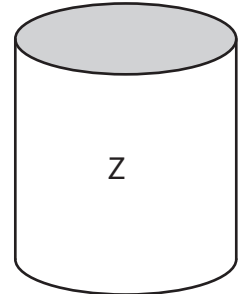


H

2) Scale factor of Z to Y is 7 : 1.2



Y



Z

SA = 98 in<sup>2</sup>

Surface area of figure Y = 2.88 in<sup>2</sup>

3) Scale factor of L to M is 0.7 : 4.1



SA = ?

Surface area of figure

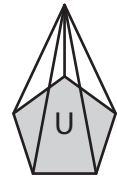
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Surface area of figure T is 0.7 : 4.1



U

SA = 5.88 ft<sup>2</sup>

Surface area of figure T = 201.72 ft<sup>2</sup>

5) S and T are similar hexagons. If the surface area of S is 144 square inches and the surface area of T is 1,440 square inches, what will be the surface area of S if the surface area of T is 1,440 square inches?

144 square inches

6) The scale factor of two similar figures is 3.3 : 8. Find the surface area of the smaller figure, if the surface area of the larger figure is 6,400 square yards.

1,089 square yards