Practice Worksheet for Lesson 12-5 Name:
Mailbox #:

Complete the following table.

	#1	#2	#3	#4	#5
Scale factor	2: 5				
Ratio of base perimeters					
Ratio of heights		1: 3			
Ratio of lateral areas			4: 49		
Ratio of total areas					
Ratio of volumes				125:216	27: 1000

6) Two cones have radii 8 and 12. The heights are 20 and 30. Are the cones similar?

7) The heights of two right prisms are 9 and 15. The bases are squares with sides 27 and 40. Are the prisms similar?

Find the indicated ratios for the given solids.

8) Two similar cylinders with radii 5 and 8

a) heights _____ b) total areas _____ c) volumes _____

9) Two similar cones with volumes 8π and 64π

a) radii _____ b) slant heights _____ c) lateral areas ____

10) Two similar cylinders with lateral areas 36π and 81π

a) heights _____ b) total areas _____ c) volumes _____

11) Two similar pyramids with heights 3 and 5

a) base areas _____ b) total areas _____ c) volumes _____

12) Two spheres made of the same material have radii 9 cm and 12 cm. If the smaller sphere weighs 3 kg, find the weight of the larger ball to the nearest 0.1 kg.

13) Two similar rectangular prisms have heights 6 and 20. If the smaller prism has total area 126, find the total area of the larger prism.

14) If the radius of a cone is multiplied by 3 and the height remains the

same, then the volume is multiplied by _____.

15) Two similar cones have radii of 4cm and 6cm. The total area of the smaller cone is 36π cm^2. Find the total area of the larger cone (in terms of π).