## Unit 6 (Part 2) Review

## Prisms

- 1. Determine the volume of a rectangular prism that has a base length of 7 in, a base height of 11 in and a height of 10 in.
- 2. Determine the volume of the rectangular prism.



3. If the figure below were dilated by a scale factor of k = 5, what would the volume of the dilated figure be?



4. A square prism has a volume of 252 cm<sup>3</sup>. Determine the base height if the height of the prism is 7 cm.

**Cylinders** 

5. Determine the volume of a cylinder that has a radius of 12 in and a height of 11 in.

6. Determine the volume of the cylinder. Leave your answer in terms of pi.



7. If the figure below were dilated by a scale factor of k = 4, what would the volume of the dilated figure be?



8. A cylinder has a volume of  $363\pi$  in<sup>3</sup>. Determine the radius if the height is 3 in.

**Pyramids** 

9. Determine the volume of a square pyramid that has a base length of 16 in, a height of 6 in and a slant height of 10 in.

10. Determine the volume of the square pyramid.



11. If the figure below were dilated by a scale factor of k = 2, what would the volume of the dilated figure be?



12. A square pyramid has a volume of 96 in<sup>3</sup>. Determine the base length if the height is 2 in.

Name:	Per:	

## Cones

13. Determine the volume of a cone that has a radius of 15 cm, a height of 8 cm and a slant height of 17 cm.

14. Determine the volume of the cone. Leave your answer in terms of pi.



15. If the figure below were dilated by a scale factor of k = 3, what would the volume of the dilated figure be?



16. A cone has a volume of  $16\pi$  in<sup>3</sup>. Determine the radius if the height is 12 in.

## **Spheres**

17. Determine the volume of a sphere
that has a radius of 15 cm.

18. Determine the volume of the given sphere in terms of pi.



19. If the figure below were dilated by a scale factor of k = 2, what would the volume of the dilated figure be?



Unit 6 (Part 2) Review Answers

1. $V = 770 in^3$	2. $V = 504$	3. $V = 5000$	4. $h = 6 cm$	5. $V = 1584\pi in^3$			
6. $V = 63\pi$	7. $V = 64000\pi$	8. $r = 11 in$	9. $V = 512 in^3$	10. $V = 81.7$			
11. $V = 384$	12. $b = 12 in$	13. $V = 600\pi \ cm^3$	14. $V = 53.3\pi$	15. $V = 3240\pi$			
16. $r = 2 in$	17. $V = 4500\pi$	18. $V = 230$	$4\pi$ 19	$V = 288\pi$			