Chapter 10 – Practice

 Name

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| 1. This right prism has right triangular bases.  The height of the prism is 15”. a. Find its volume b. Find its surface area. | Macintosh HD:Users:lisahoneyman:Desktop:Screen shot 2014-06-04 at 10.28.10 PM.png |
| 2. Find the exact volume of the right cylinder at the right. | Macintosh HD:Users:lisahoneyman:Desktop:Screen shot 2014-06-04 at 10.28.24 PM.png |
| 3. A pyramid has a square base. Its volume is 810 cm3 and the length of a base edge is 9 cm. Find the height of the pyramid. |
| Macintosh HD:Users:lisahoneyman:Desktop:Screen shot 2014-06-04 at 10.37.47 PM.png4. Find the lateral area of the cone at the right. |
| 5. A box for tissues is made from cardboard. If the area of the hole in the box is 69.7 cm2, how much cardboard is needed for each box?Macintosh HD:Users:lisahoneyman:Desktop:Screen shot 2014-06-04 at 10.35.33 PM.png |
| 6. A cube has volume 512 mm3. Find its lateral area. |
| Macintosh HD:Users:lisahoneyman:Desktop:Screen shot 2014-06-04 at 10.39.46 PM.png7. Consider this sphere. a. Find its surface area. b. Find its volume. |
| 8. Do the rectangular and triangular prisms have the same volume? Show work and then write a summary statement to explain your answer.Macintosh HD:Users:lisahoneyman:Desktop:Screen shot 2014-06-04 at 10.42.31 PM.png |
| Macintosh HD:Users:lisahoneyman:Desktop:Screen shot 2014-06-04 at 10.42.24 PM.png9. Find the volume of this cone. |

10. The surface area of a sphere is 500 in2. Give the radius of the sphere to the nearest inch.

11. a. Express the volume of the box at the right as
 a product of three binomials.

 b. Expand the product.

ANSWERS

1. a. 2700 in3 2. 300π units3 3. 30 cm 4. 1224π  3845.3 units2

 b. 1710 in2

5. 902.3 cm2 6. 384 mm2 7a. 1296π  4071.5 units2

 b. 7776π  24,429 units3

8. No; the heights are the same but the area of the base of the figure on the left is 24 units2, while the area of the base of the figure on the right is only 12 units2.

9. 800π  2513.3 units3 10. 6.3 in. 11. a. (t + 3)(t + 5)(t + 2)

 b. t3 + 10t2 + 31t = 30