

CP1 GEOMETRY
CHAPTER 12
SURFACE AREA AND VOLUME
HOMEWORK ASSIGNMENTS

Remember to show your work for all problems. Showing only the answer is NOT acceptable if work is required to do the problem. If you can't finish a problem, at least show me that you attempted it.

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CP1 Geometry Chapter 12 Answer Key

Assignment #2, page 563 (Prism Area)

- 1a. 550 sq. cm 2b. 126
 3a. 550 b. 120 c. 790
 4a. $90 - 18\sqrt{3}$ b. $360 - 72\sqrt{3}$
 5a. 150 b. 294
 6a. 236 b. $144 + 66\sqrt{3}$
 7a. LA=480; TA=552 b. LA=120, TA=132
 c. LA=2500, TA=2620
 d. LA=360 TA= $360 + 108\sqrt{3}$
 8. 226

Assignment #3, page 567 (Pyramid Area)

- 1a. 60 b. 240 c. 340
 2a. 120 b. $64\sqrt{3}$ c. $360 + 64\sqrt{3}$
 3a. The base is not regular b. 936 c. 1356
 4a. No b. 9 c. 740
 6. 105 7a. 72 b. 432 c. 324 d. 756
 8a. L.A.= 700; T.A. = 896
 8b. LA = 544; TA = 800

Assignment #4, page 572 (Cylind & Cone Ar)

- 1a. 196π b. 36π c. 36π d. 25π
 2a. LA= 24π TA= 33π b. LA= 140π
 TA= 238π c. LA= 40π TA= 72π d. LA= 3π
 TA= 4π
 3. 6 4a. 34π b. 108π
 6. $35\pi + 20$ 7a. 90π b. 66π c. 480π
 8. 24 cans 9. 8π cm by 14 cm
 10. 93π

Assignment #5, page 579 (Volume Prism & Cyl)

- 1a. 300π b. 720
 2. $(6 + 5\pi)$ cu m
 5a. 343 b. e^3 c. 5
 6. 22
 7a. ~ 23 cu ft b. 1456 lb
 8. (2,0,8)
 9. V=600; TA=620
 10b. V= 360π TA= $156\pi + 240$
 12. V= $540\sqrt{3}$ TA= $360 + 108\sqrt{3}$
 13. $250\sqrt{2}$
 14. 6.75 cm
 15. 189
 16. Yes, by ~ 3.6 cu cm
 17a. ~ 621 cu in. b. 439 sq in

Assignment #6, page 585 (Vol Pyr. & Cone)

1. $490\sqrt{3}$
 2. ~ 314.16
 3a. 400 b. 360
 5a. 1080π c. 450π
 6. ~ 533 cu m
 7. ~ 1451 cu ft
 8. ~ 391.8
 9. 200
 13. 720 cu m
 14a. 15 b. 9 and 15 c. ~ 1018
 d. 4712 e. ~ 3695
 15. compare with neighbors
 16. 125 cu in

Assignment #7, page 590 (Volume Sphere)

2. V= 288π TA= 144π
 3. ~ 481 cu m
 4a. 392π b. 144π c. 248π
 5. ~ 523 cu ft
 6. 19 cu cm
 8a. $\sim 56,549$ cu m b. ~ 2827 sq m
 c. Twice as much d. ~ 42
 9. ~ 72 cu mm
 10a. 8:125 b. 4:25

Assignment #8, Chapter Review, page 594

- 1a. LA=48 TA=84 b. LA= 56π TA= 88π
 2a. 512 b. 108 c. 98π d. 20 e. 60 f. $\frac{32}{3}\pi$
 3a. V= 360π TA= 192π b. V=540 TA=468 c.
 V= 100π TA= 90π
 4. 90
 5a. 5 b. 6
 6. 240π
 7. 562,500 cu cm
 8a. 320 b. 576 c. 512
 9. 36π
 10a. LA=180 TA= $180 + 25\sqrt{3}$ b. LA= 60π
 TA= 96π c. LA= 195π TA= 279.5π
 11a. 75π b. $45\pi + 60$
 12. 48π
 13. 35
 14. $(1440 + 432\sqrt{3})$ sq cm; $4320\sqrt{3}$ cu cm
 15. 5040
 17. 215 cu in.