

## Geometry Homework #7 – Answer Key

- 1) Exact surface area =  $144\pi$       Exact volume =  $128\pi$   
Approximate surface area  $\approx 452.16$       Approximate volume  $\approx 401.92$
- 2) Exact surface area =  $1,296\pi$       Exact volume =  $7,776\pi$   
Approximate surface area  $\approx 4,069.44$       Approximate volume  $\approx 24,416.64$
- 3) Exact surface area =  $434\pi$       Exact volume =  $1,176\pi$   
Approximate surface area  $\approx 1,362.76$       Approximate volume  $\approx 3,692.64$
- 4) Exact surface area =  $300\pi$       Exact volume =  $240\pi$   
Approximate surface area  $\approx 942$       Approximate volume  $\approx 753.6$
- 5) Exact surface area =  $64\pi$       Exact volume =  $\frac{256}{3}\pi$   
Approximate surface area  $\approx 200.96$       Approximate volume  $\approx 267.94\bar{6}$
- 6)  $x = 5$
- 7) The area of quadrilateral DGE B = 18 and the length of GC = 28
- 8)  $a = 12, x = \frac{144}{5}, y = \frac{156}{5}$
- 9)  $x = 13, y = 12$
- 10) The area of triangle AGC = 12 and the length of BG = 10
- 11) The area of triangle AEC = 32 and the length of GF = 13
- 12)  $a = 15\sqrt{10}, x = 15, y = 5\sqrt{10}$
- 13)  $x = 18$
- 14) The area of triangle BGD = 6 and the length of AG = 20
- 15) The area of triangle FGC = 8, the length of AC =  $4\sqrt{13}$ , and BG = 18
- 16)  $a = 5, x = \frac{16}{3}, y = \frac{20}{3}$
- 17)  $x = 15$  and  $y = 17$
- 18) The area of triangle BGC = 14 and the perimeter of triangle ADG = 13
- 19) The area of triangle CFG = 13 and the perimeter of triangle DGB = 17
- 20)  $a = 20, x = 12, y = 15$