

## Geometry Homework #8 – Answer Key

- 1) The area of triangle ABE = 48 and the perimeter of triangle FGC = 21
- 2)  $x = 12$  and  $y = 13$
- 3)  $a = 2\sqrt{10}$ ,  $x = 18$ ,  $y = 6\sqrt{10}$
- 4) The area of triangle CFB = 72 and the perimeter of triangle ABE = 35
- 5) The area of triangle GEC = 10, AG = 8, and the perimeter of triangle ABE =  $2\sqrt{61} + 22$
- 6) Surface Area =  $198\sqrt{3}$       Volume =  $216\sqrt{3}$
- 7) Surface Area = 900      Volume = 1680
- 8) Surface Area = 768      Volume = 864
- 9) Surface Area = 288      Volume = 320
- 10) Surface Area =  $192\sqrt{3} + 480$       Volume =  $960\sqrt{3}$
- 11) Surface Area = 1,440      Volume = 2,160
- 12) Surface Area =  $392\sqrt{2} + 588$       Volume =  $1176\sqrt{2}$
- 13) Surface Area =  $588\sqrt{3} + 336$       Volume =  $1176\sqrt{3}$
- 14) Surface Area = 1,620      Volume = 3,240
- 15) Surface Area = 832      Volume = 1,280
- 16) Surface Area =  $720\sqrt{3}$       Volume =  $1512\sqrt{3}$
- 17) Surface Area = 1,920      Volume = 5,400
- 18) Surface Area =  $900\sqrt{7} + 2,340$       Volume =  $5850\sqrt{7}$
- 19) Surface Area =  $288\sqrt{2} + 672$       Volume =  $2,016\sqrt{2}$
- 20) Surface Area =  $768\sqrt{3} + 1,152$       Volume =  $4,608\sqrt{3}$