**UNIT 2 HW 1 – Introduction to Polynomials**  Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

*Perform the indicated operation.*

1. $\left(-3x^{2}-6x+5\right)+\left(-2x^{2}+3x-5\right)$ 2. $\left(2u^{2}+3u-6\right)-\left(-8u+10\right)$

3. $\left(x^{3}+3x^{2}\right)-(-x^{2}+x)$ 4. $\left(-3c^{3}-2+4c\right)+(5c+3c^{3}-7)$

5. $\left(-9a^{2}+8a^{3}-11a\right)-(9a^{3}-12a+a^{2})$ 6. $\left(-7a^{2}+9a-16\right)+(a+20)$

7. $2p^{3}\left(4p^{3}-3p^{2}+5\right)$ 8. $y\left(y^{3}+2y^{2}+3y-6\right)$

9. $-6\left(\frac{2}{3}r^{3}-\frac{3}{2}\right)$ 10. $\frac{-2}{9}\left(18x^{3}-12x\right)$

11. $\left(x-3\right)^{2}$ 12. $\left(d-3\right)\left(d-25\right)$

13. $\left(4-m\right)\left(8-m\right)$ 14. $\left(-y-11\right)\left(y+2\right)$

15. $(6a+1)(4a+1)$ 16. $(3-n^{2})(15-n^{2})$

17. $(4a+2)(6a^{2}-a+2)$ 18. $(7k-3)(k^{2}-2k+7)$

*Find the perimeter AND area of each shape:*

19. 20.