Algebra II Pre-AP WKST Rev 2013 Name _____
5.3: Operating Polynomials Date _____ Period _____

Find the sum or difference of the following polynomials.

1) $(3x^2-5)+(7x^2-3)$ 2) $(4y^2+9y-5)-(4y^2-5y+3)$ 3) $(3s^2+s)+(4s^3-2s^2+7s+10)$

4) $(2a^2-8)-(a^3+4a^2-12a+4)$ 5) $(8v^4-2v^2+v-4)-(3v^3-12v^2+8v)$ 6) $(5b-6b^3+2b^4)-(9b^3+4b^4-7)$

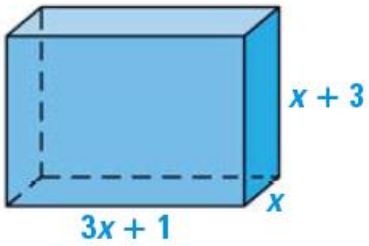
Find the product of the polynomials.

7) $(w+4)(w^2+6w-11)$ 8) $(5c^2-4)(2c^2+c-3)$ 9) $(-d^2+4d+3)(3d^2-7d+6)$

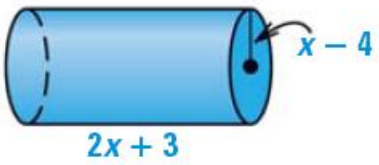
10) $(z-4)(-z+2)(z+8)$ 11) $(3p+1)(p+3)(p+1)$

Write the figure's volume as a polynomial.

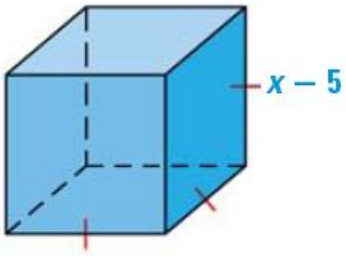
12) $V=\ell wh$



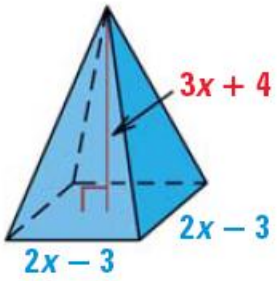
13) $V=\pi r^2 h$



14) $V=s^3$



15) $V=\frac{1}{3}Bh$



Use Pascal's Triangle to determine the product.

16) $(y+4)^3$ 17) $(x+2)^6$

18) $(x-3y)^5$ 19) $(7x-y)^3$