Algebra 1 Unit 5 Extra Review Name: Key

1) Find the sum:
$(3x^3+2x^2-8)+(-5x^2+3x-2)$

$3x^3-3x^2+3x-10$

2) Find the difference:
$(3x^3+2x^2-8)-(-5x^2+3x-2)$

$3x^3+7x^2-3x-6$

Find the product:

3) $(3x-1)(2x+7)$

$6x^2+19x-7$

4) $(8x-3)(3x^2+4x-6)$

$-9x^2-12x+18$

$+\ 24x^3+32x^2-48x$

5) $(5x-1)^2$

$25x^2-10x+1$

6) $-2x^5(3x^2-x+4)$

$-6x^7+2x^6-8x^5$

7) What is the greatest common factor?
$6x^3y^3-3xy^2+12x^4y^5$

$3xy^2$

Write in factored form:

8) $12x^2+30x+18$

$6[2x^2+5x+3]$

$6(2x+3)(x+1)$

9) $5x^2-625$

$5(x^2-125)$

10) $x^2+2x-15$

$(x+5)(x-3)$

Find the solution set:

11) $16x^2-8x=-1$

$16x^2-8x+1=0$

$(4x-1)^2=0$

$1/4$

12) $4x^3+4x-24=0$

$4(x^2+x-6)=0$

$4(x+3)(x-2)=0$

$-3, 2$

13) What are the roots?
$(2x+1)(x-2)=0$

$2, -1/2$

14) Can this trinomial be written as a perfect square binomial?
$x^2+14x+49$

Yes

$(x+7)^2$

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