Person Puzzle Multiplying Polynomials

Name _____ Date _____

Stefanie Spielman

The wife of a former NFL player, Stefanie Spielman (1967 - 2009), became an unexpected public figure. Spielman gained national attention for her diagnosis and ongoing battle with breast cancer. Despite ultimately succumbing to the disease after the fifth recurrence, Spielman lived her life relentlessly raising awareness and fundraising for cancer research.

Directions: Multiply each set of polynomials. The word or phrase next to the equivalent expression will complete the statement correctly.

1. $(a-2)(a^2+5a+1)$

Stefanie Spielman graduated high school in Massillon, _____.

a.	a^3-10a^2-9a+2	Michigan
b.	a^3+3a^2-9a-2	Ohio
c.	$a^3-2a^2-10a-2$	Pennsylvania

2. $(d^2-7d-4)(d-4)$

In 1989, Stefanie Graduated from Ohio State University with a degree in _____.

a.	$d^3-7d^2-28d-8$	education
b.	$d^3-11d^2+24d+16$	journalism
c.	$d^3+11d^2-28d+16$	marketing

3. $(2w^2+w-1)(3w+2)$

She married her high school sweetheart Chris who was an all-pro linebacker for the _____.

a.	$5w^3+3w^2-w-2$	Buffalo Bills
b.	$6w^3+w^2-5w-2$	Cleveland Browns
c.	$6w^3+7w^2-w-2$	Detroit Lions

4. $(k+3)(k-1)(k+2)$

After concern from a self-exam, Spielman learned she had breast cancer at age _____.

a.	k^3+4k^2+k-6	30
b.	k^3+k^2+3k-5	34
c.	k^3+6k^2+7k-6	36

5. $(2b-7)(b+5)(b-1)$

Stefanie and her diagnosis received national attention after Chris decided to _____.

a.	$b^4+4b^2-11b+7$	filmed a PSA
b.	$2b^3+b^2-38b+35$	leave football for a year
c.	$2b^3+4b^2-9b+35$	wore a sticker

6. $(x^2-5x+4)(x^2+2x+1)$

The Spielmans set out to use their public position to raise money and set an annual goal of $250,000. After six months they _____.

a.	$x^4+5x^3+4x^2-x+4$	had $150,000
b.	$x^4-6x^3+3x^2+6x+4$	met their goal
c.	$x^4-3x^3-5x^2+3x+4$	raised a million

7. $(2d^2-d+6)(3d^2-2d-1)$

To recognize steadfast supporters of cancer survivors like her husband, she created *Stephanie's* _____.

a.	$6d^4-9d^3+6d^2-5d-6$	*Buckeyes*
b.	$6d^4-7d^3+18d^2-11d-6$	*Champions*
c.	$6d^4+3d^3-8d^2-2d-6$	*Warriors*

8. $(y^3-3y^2+y-5)(y^3+y^2-3y-1)$

To date, the *Stefanie Spielman Fund for Breast Cancer Research* has raised more than _____ million dollars for the Ohio State University James Cancer Hospital.

a.	$y^6-2y^5-8y^4+4y^3-8y^2+14y+5$	6
b.	$y^6-2y^5-2y^4+4y^3-4y^2+14y+5$	9
c.	$y^6-2y^5-5y^4+4y^3-5y^2+14y+5$	11

Show Your Work

1. $(a-2)(a^2+5a+1)$

2. $(d^2-7d-4)(d-4)$

3. $(2w^2+w-1)(3w+2)$

4. $(k+3)(k-1)(k+2)$

Stefanie Spielman

5. $(2b-7)(b+5)(b-1)$

6. $(x^2-5x+4)(x^2+2x+1)$

7. $(2d^2-d+6)(3d^2-2d-1)$

8. $(y^3-3y^2+y-5)(y^3+y^2-3y-1)$