

Saint Joseph Convent School - English Program

Semester 1 | SY 2025-2026

G10 Advanced Math Quiz

Name: \_\_\_\_\_ Nickname: \_\_\_\_\_ G10/\_\_\_\_ Date: \_\_\_\_\_ Score: \_\_\_\_\_

**Name each polynomial by degree and number of terms.**

1)  $-2a^2 - 3a - 9a^3 + 6$

2)  $7a^4 - 8a^8 + a^3 - 10a^5 - 6a^6 + 3$

3)  $2r^3$

4)  $7n^3 + 7n + n^6$

**Find each product.**

5)  $(n + 8)(8n + 8)$

6)  $(7n + 5)(8n - 1)$

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

8)  $(10x^3 + 3y)^2$

**Factor each completely.**

9)  $x^2 + x - 2 = 0$

10)  $x^2 - 4x - 5 = 0$

$$11) \ x^3 + 2x^2 + 2x + 4 = 0$$

$$12) \ x^3 - 4x^2 + 4x - 16 = 0$$

$$13) \ x^4 - x^2 - 20 = 0$$

$$14) \ x^4 + 3x^2 - 18 = 0$$

$$15) \ x^4 + 27x = 0$$

$$16) \ x^4 - 64x = 0$$

$$17) \ -27x^4 + 64x = 0$$

$$18) \ -64x^4 + 125x = 0$$

Saint Joseph Convent School - English Program

Semester 1 | SY 2025-2026

G10 Advanced Math Quiz

Name: \_\_\_\_\_ Nickname: \_\_\_\_\_ G10/\_\_\_\_ Date: \_\_\_\_\_ Score: \_\_\_\_\_

**Name each polynomial by degree and number of terms.**

1)  $7x + 9$

2)  $10b^2 + 1 + 4b^8 - 4b^7$

3)  $2a^5 + 6a^2$

4)  $10x^4$

**Find each product.**

5)  $(a - 1)(3a - 5)$

6)  $(6p + 6)(2p - 5)$

7)  $(-x^2 + 7x - 8)(2x^2 + 8x - 8)$

8)  $(-8x + 3y)^2$

**Factor each completely.**

9)  $x^2 + 4x + 3 = 0$

10)  $x^2 - 16 = 0$

$$11) \ x^3 + 4x^2 + x + 4 = 0$$

$$12) \ x^3 + x^2 - 4x - 4 = 0$$

$$13) \ x^4 - 9x^2 + 14 = 0$$

$$14) \ x^4 + 2x^2 - 8 = 0$$

$$15) \ x^4 - 27x = 0$$

$$16) \ x^4 - 8x = 0$$

$$17) \ -125x^4 + 27x = 0$$

$$18) \ 8x^4 + 27x = 0$$

Saint Joseph Convent School - English Program

Semester 1 | SY 2025-2026

G10 Advanced Math Quiz

Name: \_\_\_\_\_ Nickname: \_\_\_\_\_ G10/\_\_\_\_ Date: \_\_\_\_\_ Score: \_\_\_\_\_

**Name each polynomial by degree and number of terms.**

1)  $-2 - n^2$

2)  $-8k^7 + 9k^8$

3)  $-5n + 6$

4)  $-8$

**Find each product.**

5)  $(3p + 1)(8p + 7)$

6)  $(3v + 1)(8v + 6)$

7)  $(-6x^2 + 3x + 8)(4x^2 - 8x + 3)$

8)  $(7x^2 - 8y)^2$

**Factor each completely.**

9)  $x^2 + 3x + 2 = 0$

10)  $x^2 - 1 = 0$

$$11) \ x^3 + 5x^2 + 3x + 15 = 0$$

$$12) \ x^3 + 2x^2 - 5x - 10 = 0$$

$$13) \ x^4 - 13x^2 + 42 = 0$$

$$14) \ x^4 - 11x^2 + 28 = 0$$

$$15) \ x^4 - x = 0$$

$$16) \ x^4 + 64x = 0$$

$$17) \ 64x^4 + 27x = 0$$

$$18) \ -27x^4 + 64x = 0$$

Saint Joseph Convent School - English Program

Semester 1 | SY 2025-2026

G10 Advanced Math Quiz

Name: \_\_\_\_\_ Nickname: \_\_\_\_\_ G10/\_\_\_\_ Date: \_\_\_\_\_ Score: \_\_\_\_\_

**Name each polynomial by degree and number of terms.**

1)  $-4 - 7x^6 + 7x^3 - 9x^4 - 8x^2$

2)  $-3x^3$

3)  $-9p - 4p^3 - 6 - 9p^2$

4)  $8x + 8x^4 - 4x^2 - 2$

**Find each product.**

5)  $(8k - 1)(3k - 4)$

6)  $(4x - 8)(4x + 8)$

7)  $(-4n^2 - 6n - 6)(-3n^2 - n - 6)$

8)  $(-6x - 4y)^2$

**Factor each completely.**

9)  $x^2 + x - 6 = 0$

10)  $x^2 - 3x + 2 = 0$

$$11) \ x^3 - 3x^2 - 5x + 15 = 0$$

$$12) \ x^3 - 3x^2 + 2x - 6 = 0$$

$$13) \ x^4 + 15x^2 + 56 = 0$$

$$14) \ x^4 + 3x^2 - 40 = 0$$

$$15) \ x^4 - 125x = 0$$

$$16) \ x^4 + 64x = 0$$

$$17) \ 8x^4 - 125x = 0$$

$$18) \ 64x^4 - 27x = 0$$

Saint Joseph Convent School - English Program

Semester 1 | SY 2025-2026

G10 Advanced Math Quiz

Name: \_\_\_\_\_ Nickname: \_\_\_\_\_ G10/\_\_\_\_ Date: \_\_\_\_\_ Score: \_\_\_\_\_

**Name each polynomial by degree and number of terms.**

1)  $7x$

2)  $-4k^7 - 10 - 10k^2 + k^5 - 7k^6 + 10k^3$

3)  $-7 - 10x^2$

4)  $n^6$

**Find each product.**

5)  $(6x - 7)(x + 8)$

6)  $(n + 8)(2n + 7)$

7)  $(6v^2 + 2v - 5)(6v^2 - 6v + 2)$

8)  $(2v - 9u)(2v + 9u)$

**Factor each completely.**

9)  $x^2 - 5x + 4 = 0$

10)  $x^2 - x - 12 = 0$

$$11) \ x^3 - 3x^2 + 3x - 9 = 0$$

$$12) \ x^3 + 4x^2 - 2x - 8 = 0$$

$$13) \ x^4 - 7x^2 + 12 = 0$$

$$14) \ x^4 + 12x^2 + 32 = 0$$

$$15) \ x^4 - 27x = 0$$

$$16) \ x^4 + 27x = 0$$

$$17) \ 27x^4 - 64x = 0$$

$$18) \ 27x^4 - 8x = 0$$

Saint Joseph Convent School - English Program

Semester 1 | SY 2025-2026

G10 Advanced Math Quiz

Name: \_\_\_\_\_ Nickname: \_\_\_\_\_ G10/\_\_\_\_ Date: \_\_\_\_\_ Score: \_\_\_\_\_

**Name each polynomial by degree and number of terms.**

1)  $-2k$

2)  $3b^3 + 9b^2 + 10 - b$

3)  $-9n^4$

4)  $-1$

**Find each product.**

5)  $(m - 7)(5m + 7)$

6)  $(7m + 1)(4m + 5)$

7)  $(-6a^2 - 4a + 5)(-4a^2 + 4a - 1)$

8)  $(7u + 3v^2)^2$

**Factor each completely.**

9)  $x^2 - 5x + 6 = 0$

10)  $x^2 + 10x + 25 = 0$

$$11) \ x^3 + 3x^2 + 4x + 12 = 0$$

$$12) \ x^3 - 3x^2 - 3x + 9 = 0$$

$$13) \ x^4 + x^2 - 12 = 0$$

$$14) \ x^4 - 7x^2 + 6 = 0$$

$$15) \ x^4 + 125x = 0$$

$$16) \ x^4 + 27x = 0$$

$$17) \ 8x^4 - 27x = 0$$

$$18) \ -125x^4 + 27x = 0$$

Saint Joseph Convent School - English Program

Semester 1 | SY 2025-2026

G10 Advanced Math Quiz

Name: \_\_\_\_\_ Nickname: \_\_\_\_\_ G10/\_\_\_\_ Date: \_\_\_\_\_ Score: \_\_\_\_\_

**Name each polynomial by degree and number of terms.**

1)  $-2n^2 + 5n$

2)  $7m + 6m^2$

3)  $5v^5 - 10v^3 + v^2 - 7v - 6v^4 + 5v^7$

4)  $3 + 6m^6 + 6m^8 - 5m^4 - 6m^5$

**Find each product.**

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

6)  $(7r + 6)(3r - 5)$

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

8)  $(4m + n)(4m - n)$

**Factor each completely.**

9)  $x^2 + x - 6 = 0$

10)  $x^2 + 2x - 15 = 0$

$$11) \ x^3 + 5x^2 - 3x - 15 = 0$$

$$12) \ x^3 + 2x^2 - 5x - 10 = 0$$

$$13) \ x^4 + 4x^2 - 12 = 0$$

$$14) \ x^4 + 11x^2 + 30 = 0$$

$$15) \ x^4 - 125x = 0$$

$$16) \ x^4 + 125x = 0$$

$$17) \ -27x^4 + 8x = 0$$

$$18) \ 27x^4 - 64x = 0$$

Saint Joseph Convent School - English Program

Semester 1 | SY 2025-2026

G10 Advanced Math Quiz

Name: \_\_\_\_\_ Nickname: \_\_\_\_\_ G10/\_\_\_\_ Date: \_\_\_\_\_ Score: \_\_\_\_\_

**Name each polynomial by degree and number of terms.**

1)  $2b^4 - 10b^3$

2)  $-1$

3)  $-8 + 9k^3 + 10k^7 + 10k$

4)  $-4n^2 - n^4 - 5n + 4 + 5n^3$

**Find each product.**

5)  $(2x + 8)(7x + 7)$

6)  $(7x - 5)(7x + 1)$

7)  $(-6v^2 - 2v - 7)(3v^2 + 8v - 1)$

8)  $(-10x - 9y)^2$

**Factor each completely.**

9)  $x^3 + 7x^2 + 10x = 0$

10)  $x^2 + 5x + 4 = 0$

$$11) \ x^3 + 3x^2 + x + 3 = 0$$

$$12) \ x^3 - 5x^2 + 5x - 25 = 0$$

$$13) \ x^4 + 2x^2 - 15 = 0$$

$$14) \ x^4 + x^2 - 42 = 0$$

$$15) \ x^4 - 64x = 0$$

$$16) \ x^4 + 8x = 0$$

$$17) \ -27x^4 + 64x = 0$$

$$18) \ 125x^4 + 8x = 0$$

Saint Joseph Convent School - English Program

Semester 1 | SY 2025-2026

G10 Advanced Math Quiz

Name: \_\_\_\_\_ Nickname: \_\_\_\_\_ G10/\_\_\_\_ Date: \_\_\_\_\_ Score: \_\_\_\_\_

**Name each polynomial by degree and number of terms.**

1)  $9n^4 + 4n^8 + 7n^2 - 10n + 2n^7$

2)  $-8x^6$

3)  $-6n - 5 - 2n^3 + 2n^2 - 8n^6$

4)  $9 - 3k^4 - 2k^5$

**Find each product.**

5)  $(4x + 3)(8x - 7)$

6)  $(7p - 3)(7p - 5)$

7)  $(8x^2 - 2x - 7)(6x^2 + 8x - 8)$

8)  $(2a - 10b)(2a + 10b)$

**Factor each completely.**

9)  $x^2 + 6x + 8 = 0$

10)  $x^3 + x^2 - 6x = 0$

$$11) \ x^3 - 5x^2 - 2x + 10 = 0$$

$$12) \ x^3 + x^2 - x - 1 = 0$$

$$13) \ x^4 - 12x^2 + 27 = 0$$

$$14) \ x^4 + 13x^2 + 40 = 0$$

$$15) \ x^4 - x = 0$$

$$16) \ x^4 - 27x = 0$$

$$17) \ 125x^4 - 64x = 0$$

$$18) \ 125x^4 + 8x = 0$$

Saint Joseph Convent School - English Program

Semester 1 | SY 2025-2026

G10 Advanced Math Quiz

Name: \_\_\_\_\_ Nickname: \_\_\_\_\_ G10/\_\_\_\_ Date: \_\_\_\_\_ Score: \_\_\_\_\_

**Name each polynomial by degree and number of terms.**

1)  $r^5 - 6r^6 - r^7 + 7r - 2r^3$

2)  $-4n$

3)  $-7m^8$

4)  $-10x + 3 - 10x^5 + 6x^3 - 2x^4 - 9x^2$

**Find each product.**

5)  $(5x + 8)(2x - 7)$

6)  $(3n + 3)(7n + 3)$

7)  $(6x^2 - x + 6)(8x^2 + 2x - 6)$

8)  $(-8a^2 + 8b)^2$

**Factor each completely.**

9)  $x^2 + 7x + 10 = 0$

10)  $x^2 + 5x + 4 = 0$

$$11) \ x^3 + 3x^2 - x - 3 = 0$$

$$12) \ x^3 + 4x^2 + 2x + 8 = 0$$

$$13) \ x^4 - 9x^2 + 14 = 0$$

$$14) \ x^4 + 3x^2 - 28 = 0$$

$$15) \ x^4 + 8x = 0$$

$$16) \ x^4 + x = 0$$

$$17) \ 27x^4 + 8x = 0$$

$$18) \ 64x^4 - 125x = 0$$

Saint Joseph Convent School - English Program

Semester 1 | SY 2025-2026

G10 Advanced Math Quiz

Name: \_\_\_\_\_ Nickname: \_\_\_\_\_ G10/\_\_\_\_ Date: \_\_\_\_\_ Score: \_\_\_\_\_

**Name each polynomial by degree and number of terms.**

1)  $-3$

2)  $-x^8 - x^6$

3)  $-v$

4)  $-7p^4 - 5p^7 + 9p^2 - 3 - p^6$

**Find each product.**

5)  $(6b + 6)(b + 8)$

6)  $(4m - 1)(8m + 4)$

7)  $(-2n^2 - 6n + 6)(-6n^2 - 4n - 3)$

8)  $(-8m^2 - 3n^2)^2$

**Factor each completely.**

9)  $x^2 - 5x + 6 = 0$

10)  $x^2 - 2x + 1 = 0$

$$11) \ x^3 - 5x^2 - x + 5 = 0$$

$$12) \ x^3 + 4x^2 - 2x - 8 = 0$$

$$13) \ x^4 + 11x^2 + 30 = 0$$

$$14) \ x^4 - 11x^2 + 28 = 0$$

$$15) \ x^4 - 64x = 0$$

$$16) \ x^4 - 27x = 0$$

$$17) \ 125x^4 - 8x = 0$$

$$18) \ 125x^4 + 8x = 0$$

Saint Joseph Convent School - English Program

Semester 1 | SY 2025-2026

G10 Advanced Math Quiz

Name: \_\_\_\_\_ Nickname: \_\_\_\_\_ G10/\_\_\_\_ Date: \_\_\_\_\_ Score: \_\_\_\_\_

**Name each polynomial by degree and number of terms.**

1)  $-x + 8$

2)  $-4$

3)  $-9r^3 + 9r^7 + 7r^2$

4)  $-3k + k^3 + 5 - 4k^2$

**Find each product.**

5)  $(2x + 3)(8x - 1)$

6)  $(r - 3)(2r + 3)$

7)  $(4b^2 + 7b - 1)(7b^2 + b + 7)$

8)  $(-9u - 4v)(-9u + 4v)$

**Factor each completely.**

9)  $x^2 + x - 12 = 0$

10)  $x^3 + 4x^2 + 4x = 0$

$$11) \ x^3 + 3x^2 + 3x + 9 = 0$$

$$12) \ x^3 + x^2 - x - 1 = 0$$

$$13) \ x^4 + 14x^2 + 45 = 0$$

$$14) \ x^4 - 4x^2 - 5 = 0$$

$$15) \ x^4 - 8x = 0$$

$$16) \ x^4 + 125x = 0$$

$$17) \ -64x^4 + 125x = 0$$

$$18) \ 125x^4 + 64x = 0$$

Saint Joseph Convent School - English Program

Semester 1 | SY 2025-2026

G10 Advanced Math Quiz

Name: \_\_\_\_\_ Nickname: \_\_\_\_\_ G10/\_\_\_\_ Date: \_\_\_\_\_ Score: \_\_\_\_\_

**Name each polynomial by degree and number of terms.**

1)  $8n - 7n^2$

2) 1

3)  $-9 + 9x^4 - 3x + 3x^3 + 4x^2$

4)  $2n^5$

**Find each product.**

5)  $(8x + 5)(5x - 4)$

6)  $(3n - 1)(4n - 6)$

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

8)  $(-6n - 2m)^2$

**Factor each completely.**

9)  $x^2 + 4x + 3 = 0$

10)  $x^2 + 5x + 6 = 0$

$$11) \ x^3 + 4x^2 - 5x - 20 = 0$$

$$12) \ x^3 + x^2 + 4x + 4 = 0$$

$$13) \ x^4 + 8x^2 + 15 = 0$$

$$14) \ x^4 + 13x^2 + 36 = 0$$

$$15) \ x^4 + 64x = 0$$

$$16) \ x^4 - 64x = 0$$

$$17) \ 64x^4 + 27x = 0$$

$$18) \ 27x^4 + 64x = 0$$

Saint Joseph Convent School - English Program

Semester 1 | SY 2025-2026

G10 Advanced Math Quiz

Name: \_\_\_\_\_ Nickname: \_\_\_\_\_ G10/\_\_\_\_ Date: \_\_\_\_\_ Score: \_\_\_\_\_

**Name each polynomial by degree and number of terms.**

1)  $-4 + 6n^3 + 8n^2$

2)  $-4n$

3)  $5n^3 + 8n - 5 - 7n^5 + 9n^2$

4)  $-10$

**Find each product.**

5)  $(3b + 4)(6b + 4)$

6)  $(8m - 6)(7m - 7)$

7)  $(5x^2 - 4x + 1)(5x^2 + x - 8)$

8)  $(-4x - 3y)(-4x + 3y)$

**Factor each completely.**

9)  $x^2 - 5x + 4 = 0$

10)  $x^2 - 4x + 4 = 0$

$$11) \ x^3 + 4x^2 - x - 4 = 0$$

$$12) \ x^3 + 3x^2 - 4x - 12 = 0$$

$$13) \ x^4 - 3x^2 - 4 = 0$$

$$14) \ x^4 - 7x^2 + 12 = 0$$

$$15) \ x^4 + 27x = 0$$

$$16) \ x^4 + x = 0$$

$$17) \ 125x^4 + 27x = 0$$

$$18) \ 8x^4 - 125x = 0$$

Saint Joseph Convent School - English Program

Semester 1 | SY 2025-2026

G10 Advanced Math Quiz

Name: \_\_\_\_\_ Nickname: \_\_\_\_\_ G10/\_\_\_\_ Date: \_\_\_\_\_ Score: \_\_\_\_\_

**Name each polynomial by degree and number of terms.**

1)  $-10b^2 + 8$

2)  $-3$

3)  $-3n^7 - 3n^5 + 8 + 9n^3 - 2n$

4)  $-6n^5 - 4n^3 + 5n - 5n^8 - 10n^7$

**Find each product.**

5)  $(4b - 8)(2b - 2)$

6)  $(3r + 6)(7r + 7)$

7)  $(-8r^2 + 3r - 1)(-r^2 + 4r + 5)$

8)  $(6x + y^2)^2$

**Factor each completely.**

9)  $x^2 + 5x + 4 = 0$

10)  $x^3 + 3x^2 - 10x = 0$

$$11) \ x^3 + x^2 - 2x - 2 = 0$$

$$12) \ x^3 + 3x^2 - 5x - 15 = 0$$

$$13) \ x^4 - x^2 - 56 = 0$$

$$14) \ x^4 - 12x^2 + 27 = 0$$

$$15) \ x^4 - 27x = 0$$

$$16) \ x^4 + 8x = 0$$

$$17) \ -125x^4 + 27x = 0$$

$$18) \ -125x^4 + 8x = 0$$

Saint Joseph Convent School - English Program

Semester 1 | SY 2025-2026

G10 Advanced Math Quiz

Name: \_\_\_\_\_ Nickname: \_\_\_\_\_ G10/\_\_\_\_ Date: \_\_\_\_\_ Score: \_\_\_\_\_

**Name each polynomial by degree and number of terms.**

1)  $7r^2 + 2r - 9r^3$

2)  $6x^2$

3)  $-10n^6 - n^7$

4) 2

**Find each product.**

5)  $(5n + 8)(2n + 8)$

6)  $(7m - 4)(7m - 6)$

7)  $(-2r^2 - r - 8)(-2r^2 - 6r - 6)$

8)  $(-2x + 6y^2)^2$

**Factor each completely.**

9)  $x^2 + 5x + 6 = 0$

10)  $x^2 + 7x + 10 = 0$

$$11) \ x^3 - 4x^2 - x + 4 = 0$$

$$12) \ x^3 + x^2 + 2x + 2 = 0$$

$$13) \ x^4 + 14x^2 + 45 = 0$$

$$14) \ x^4 + 4x^2 - 32 = 0$$

$$15) \ x^4 + 64x = 0$$

$$16) \ x^4 + 8x = 0$$

$$17) \ -125x^4 + 64x = 0$$

$$18) \ 8x^4 + 27x = 0$$

Saint Joseph Convent School - English Program

Semester 1 | SY 2025-2026

G10 Advanced Math Quiz

Name: \_\_\_\_\_ Nickname: \_\_\_\_\_ G10/\_\_\_\_ Date: \_\_\_\_\_ Score: \_\_\_\_\_

**Name each polynomial by degree and number of terms.**

1)  $-7v^7$

2)  $-a^3 + 6a^2$

3)  $6 + 10x^3$

4)  $-9x^2 + 5$

**Find each product.**

5)  $(4n + 2)(8n - 8)$

6)  $(5n - 8)(5n + 5)$

7)  $(a^2 + 7a - 6)(2a^2 - a - 3)$

8)  $(5x^2 - y^2)^2$

**Factor each completely.**

9)  $x^3 - 6x^2 + 5x = 0$

10)  $x^2 + 3x - 4 = 0$

$$11) \ x^3 - 4x^2 + x - 4 = 0$$

$$12) \ x^3 - x^2 - 2x + 2 = 0$$

$$13) \ x^4 + 4x^2 - 45 = 0$$

$$14) \ x^4 + 2x^2 - 3 = 0$$

$$15) \ x^4 + 64x = 0$$

$$16) \ x^4 - 64x = 0$$

$$17) \ -64x^4 + 125x = 0$$

$$18) \ 64x^4 + 125x = 0$$

Saint Joseph Convent School - English Program

Semester 1 | SY 2025-2026

G10 Advanced Math Quiz

Name: \_\_\_\_\_ Nickname: \_\_\_\_\_ G10/\_\_\_\_ Date: \_\_\_\_\_ Score: \_\_\_\_\_

**Name each polynomial by degree and number of terms.**

1)  $-2b^2 + 3b^8 - 6b^3 - 3b^7$

2)  $-2v^5 - 10v^8 + 7v^6 - 10$

3)  $9m^4 - 9m^6 + 5m^5 + 6$

4)  $-2n^5$

**Find each product.**

5)  $(4n + 4)(8n - 4)$

6)  $(2x - 7)^2$

7)  $(8m^2 + 4m + 3)(-7m^2 + 8m + 3)$

8)  $(-3x^3 - y^2)^2$

**Factor each completely.**

9)  $x^2 + 6x + 5 = 0$

10)  $x^2 - 8x + 16 = 0$

$$11) \ x^3 - 3x^2 - 4x + 12 = 0$$

$$12) \ x^3 + 5x^2 + 2x + 10 = 0$$

$$13) \ x^4 - 7x^2 - 18 = 0$$

$$14) \ x^4 - 3x^2 - 4 = 0$$

$$15) \ x^4 - 125x = 0$$

$$16) \ x^4 + 125x = 0$$

$$17) \ -125x^4 + 64x = 0$$

$$18) \ -125x^4 + 27x = 0$$

Saint Joseph Convent School - English Program

Semester 1 | SY 2025-2026

G10 Advanced Math Quiz

Name: \_\_\_\_\_ Nickname: \_\_\_\_\_ G10/\_\_\_\_ Date: \_\_\_\_\_ Score: \_\_\_\_\_

**Name each polynomial by degree and number of terms.**

1)  $8x^3 - 10 - 6x^2$

2)  $10a^6$

3)  $4x^5 - 8x - 5x^2 + 6$

4)  $-5n^3 + 5n^4 - 3n^5 + 5n - 7 - n^6$

**Find each product.**

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

6)  $(3a + 3)(4a + 6)$

7)  $(8x^2 - 5x - 8)(4x^2 + 8x - 4)$

8)  $(-4x - 6y)^2$

**Factor each completely.**

9)  $x^2 - 6x + 5 = 0$

10)  $x^3 + 8x^2 + 15x = 0$

$$11) \ x^3 - 3x^2 + 5x - 15 = 0$$

$$12) \ x^3 + 5x^2 - 5x - 25 = 0$$

$$13) \ x^4 + 3x^2 - 4 = 0$$

$$14) \ x^4 - 2x^2 - 3 = 0$$

$$15) \ x^4 + x = 0$$

$$16) \ x^4 + 8x = 0$$

$$17) \ 27x^4 + 64x = 0$$

$$18) \ -8x^4 + 27x = 0$$

Saint Joseph Convent School - English Program

Semester 1 | SY 2025-2026

G10 Advanced Math Quiz

Name: \_\_\_\_\_ Nickname: \_\_\_\_\_ G10/\_\_\_\_ Date: \_\_\_\_\_ Score: \_\_\_\_\_

**Name each polynomial by degree and number of terms.**

1)  $10n^3 + 7n^8$

2)  $-4x - x^6 - 5x^5 - 6 + 9x^2 - x^3$

3)  $8 - 6n^2 - 2n$

4)  $8p^7$

**Find each product.**

5)  $(7n - 3)(6n + 4)$

6)  $(7m - 4)(5m - 2)$

7)  $(-7m^2 + 8m + 2)(3m^2 + 7m + 5)$

8)  $(-10a - 3b)^2$

**Factor each completely.**

9)  $x^2 + x - 2 = 0$

10)  $x^2 + 2x - 8 = 0$

$$11) \ x^3 - 3x^2 - 5x + 15 = 0$$

$$12) \ x^3 - 5x^2 - 5x + 25 = 0$$

$$13) \ x^4 - 4x^2 + 3 = 0$$

$$14) \ x^4 + 9x^2 + 14 = 0$$

$$15) \ x^4 - 64x = 0$$

$$16) \ x^4 + x = 0$$

$$17) \ -27x^4 + 125x = 0$$

$$18) \ -8x^4 + 27x = 0$$

Saint Joseph Convent School - English Program

Semester 1 | SY 2025-2026

G10 Advanced Math Quiz

Name: \_\_\_\_\_ Nickname: \_\_\_\_\_ G10/\_\_\_\_ Date: \_\_\_\_\_ Score: \_\_\_\_\_

**Name each polynomial by degree and number of terms.**

1)  $2 - 4b - 6b^2$

2)  $-8x^3$

3)  $10x - 7x^2$

4) 2

**Find each product.**

5)  $(v - 8)(5v - 7)$

6)  $(7x - 7)(5x + 1)$

7)  $(5n^2 - 7n + 1)(8n^2 + 5n - 2)$

8)  $(4x - 2y)(4x + 2y)$

**Factor each completely.**

9)  $x^2 + 6x + 8 = 0$

10)  $x^2 + 9x + 20 = 0$

$$11) \ x^3 + 3x^2 + 3x + 9 = 0$$

$$12) \ x^3 + 5x^2 - 2x - 10 = 0$$

$$13) \ x^4 + 10x^2 + 21 = 0$$

$$14) \ x^4 - 13x^2 + 42 = 0$$

$$15) \ x^4 + 125x = 0$$

$$16) \ x^4 - 64x = 0$$

$$17) \ 125x^4 - 27x = 0$$

$$18) \ 27x^4 - 8x = 0$$

Saint Joseph Convent School - English Program

Semester 1 | SY 2025-2026

G10 Advanced Math Quiz

Name: \_\_\_\_\_ Nickname: \_\_\_\_\_ G10/\_\_\_\_ Date: \_\_\_\_\_ Score: \_\_\_\_\_

**Name each polynomial by degree and number of terms.**

1)  $-2b^3 - 9 + 5b^2 - 4b$

2)  $7x^3 + 10x^7 + 9x^5 + 9 - 2x^2 + 2x$

3)  $-5$

4)  $-10$

**Find each product.**

5)  $(3n - 8)(4n + 1)$

6)  $(2x + 7)(8x - 4)$

7)  $(-3n^2 + 7n + 7)(6n^2 + n + 8)$

8)  $(9a + 10b)(9a - 10b)$

**Factor each completely.**

9)  $x^2 - 3x + 2 = 0$

10)  $x^2 + 3x - 4 = 0$

$$11) \ x^3 + 4x^2 - 2x - 8 = 0$$

$$12) \ x^3 + 2x^2 + 3x + 6 = 0$$

$$13) \ x^4 - 3x^2 - 28 = 0$$

$$14) \ x^4 + 17x^2 + 72 = 0$$

$$15) \ x^4 - x = 0$$

$$16) \ x^4 + 8x = 0$$

$$17) \ 27x^4 + 8x = 0$$

$$18) \ -27x^4 + 125x = 0$$

Saint Joseph Convent School - English Program

Semester 1 | SY 2025-2026

G10 Advanced Math Quiz

Name: \_\_\_\_\_ Nickname: \_\_\_\_\_ G10/\_\_\_\_ Date: \_\_\_\_\_ Score: \_\_\_\_\_

**Name each polynomial by degree and number of terms.**

1)  $n^6$

2) 4

3)  $-5v^3 + 4v$

4)  $-8 - n^4 + 5n^2$

**Find each product.**

5)  $(6p + 8)(4p + 8)$

6)  $(7x + 3)(7x + 5)$

7)  $(8r^2 + 4r + 2)(-2r^2 + 8r - 2)$

8)  $(5x + 4y)(5x - 4y)$

**Factor each completely.**

9)  $x^3 - 5x^2 + 4x = 0$

10)  $x^2 + x - 12 = 0$

$$11) \ x^3 - 3x^2 - 5x + 15 = 0$$

$$12) \ x^3 - x^2 + 2x - 2 = 0$$

$$13) \ x^4 - 4x^2 - 32 = 0$$

$$14) \ x^4 - 9x^2 + 18 = 0$$

$$15) \ x^4 - 125x = 0$$

$$16) \ x^4 + x = 0$$

$$17) \ -64x^4 + 27x = 0$$

$$18) \ 125x^4 + 27x = 0$$

Saint Joseph Convent School - English Program

Semester 1 | SY 2025-2026

G10 Advanced Math Quiz

Name: \_\_\_\_\_ Nickname: \_\_\_\_\_ G10/\_\_\_\_ Date: \_\_\_\_\_ Score: \_\_\_\_\_

**Name each polynomial by degree and number of terms.**

1)  $-9x^4 + 2x^2 - 3 - 2x^5 - 8x^3 + 4x^7$

2)  $8m - 2m^2 + 5 + 2m^4 - 5m^5$

3)  $4x^5$

4)  $5 - k - 9k^2$

**Find each product.**

5)  $(7n + 3)(7n - 8)$

6)  $(v - 5)(6v - 8)$

7)  $(8b^2 + b + 4)(-3b^2 + 2b - 2)$

8)  $(3x - 5y)^2$

**Factor each completely.**

9)  $x^2 + 4x - 5 = 0$

10)  $x^2 - 2x + 1 = 0$

$$11) \ x^3 + 3x^2 - 4x - 12 = 0$$

$$12) \ x^3 + x^2 + x + 1 = 0$$

$$13) \ x^4 + 5x^2 - 6 = 0$$

$$14) \ x^4 + 10x^2 + 21 = 0$$

$$15) \ x^4 + 125x = 0$$

$$16) \ x^4 - 8x = 0$$

$$17) \ -27x^4 + 64x = 0$$

$$18) \ 27x^4 + 125x = 0$$

Saint Joseph Convent School - English Program

Semester 1 | SY 2025-2026

G10 Advanced Math Quiz

Name: \_\_\_\_\_ Nickname: \_\_\_\_\_ G10/\_\_\_\_ Date: \_\_\_\_\_ Score: \_\_\_\_\_

**Name each polynomial by degree and number of terms.**

1) 5

2)  $8n^2$

3)  $-5 - 6n^3$

4)  $3n^6 - 2n^5 - 3n^3 - 8n^2$

**Find each product.**

5)  $(8v - 6)(v - 4)$

6)  $(4b - 2)(6b + 4)$

7)  $(4x^2 - x - 2)(-3x^2 - 3x + 1)$

8)  $(-2x + 7y)(-2x - 7y)$

**Factor each completely.**

9)  $x^2 + 4x - 5 = 0$

10)  $x^2 - 9 = 0$

$$11) \ x^3 - 2x^2 - 4x + 8 = 0$$

$$12) \ x^3 - 5x^2 - 5x + 25 = 0$$

$$13) \ x^4 + 4x^2 - 45 = 0$$

$$14) \ x^4 - 4x^2 - 45 = 0$$

$$15) \ x^4 - 8x = 0$$

$$16) \ x^4 + x = 0$$

$$17) \ 27x^4 - 8x = 0$$

$$18) \ -64x^4 + 125x = 0$$

Saint Joseph Convent School - English Program

Semester 1 | SY 2025-2026

G10 Advanced Math Quiz

Name: \_\_\_\_\_ Nickname: \_\_\_\_\_ G10/\_\_\_\_ Date: \_\_\_\_\_ Score: \_\_\_\_\_

**Name each polynomial by degree and number of terms.**

1)  $2n - 4$

2)  $10n^8 + 4n^4 + 5n^6 - 8n^7 - n^3$

3)  $-7b^2 - 9b^6 - 3$

4)  $5b^7 - 8b^4 - 7b^3 - 7b^5 + 5b$

**Find each product.**

5)  $(6x - 8)(4x - 4)$

6)  $(4x + 3)(2x - 1)$

7)  $(-3r^2 + 7r - 5)(-2r^2 - 8r + 6)$

8)  $(10x + 10y^2)^2$

**Factor each completely.**

9)  $x^2 + 2x - 3 = 0$

10)  $x^2 - 3x + 2 = 0$

$$11) \ x^3 - 3x^2 - 3x + 9 = 0$$

$$12) \ x^3 + x^2 - 5x - 5 = 0$$

$$13) \ x^4 - 12x^2 + 36 = 0$$

$$14) \ x^4 + 13x^2 + 36 = 0$$

$$15) \ x^4 - 27x = 0$$

$$16) \ x^4 + 125x = 0$$

$$17) \ -125x^4 + 27x = 0$$

$$18) \ 64x^4 + 27x = 0$$

Saint Joseph Convent School - English Program

Semester 1 | SY 2025-2026

G10 Advanced Math Quiz

Name: \_\_\_\_\_ Nickname: \_\_\_\_\_ G10/\_\_\_\_ Date: \_\_\_\_\_ Score: \_\_\_\_\_

**Name each polynomial by degree and number of terms.**

1)  $6k^4 + 7k^2 - 10k + 9k^3 - 9$

2)  $9x - 8x^2$

3)  $-5x^2$

4)  $-5 + 10r + 7r^4 - 10r^6 - r^5$

**Find each product.**

5)  $(3p - 4)(2p + 6)$

6)  $(3n - 1)(7n - 3)$

7)  $(4m^2 + 2m - 4)(-7m^2 + 6m - 7)$

8)  $(-7a^2 + 9b)^2$

**Factor each completely.**

9)  $x^2 - 5x + 6 = 0$

10)  $x^2 - 2x - 3 = 0$

$$11) \ x^3 + x^2 - x - 1 = 0$$

$$12) \ x^3 - 4x^2 - 2x + 8 = 0$$

$$13) \ x^4 + 12x^2 + 32 = 0$$

$$14) \ x^4 - 3x^2 - 28 = 0$$

$$15) \ x^4 - 64x = 0$$

$$16) \ x^4 - 125x = 0$$

$$17) \ 27x^4 - 64x = 0$$

$$18) \ -125x^4 + 27x = 0$$

Saint Joseph Convent School - English Program

Semester 1 | SY 2025-2026

G10 Advanced Math Quiz

Name: \_\_\_\_\_ Nickname: \_\_\_\_\_ G10/\_\_\_\_ Date: \_\_\_\_\_ Score: \_\_\_\_\_

**Name each polynomial by degree and number of terms.**

1)  $3r^5 - 5r^4 + 8r^6$

2)  $-8b^6 + 7b^7 + 9b - 5b^5 - 4b^3$

3)  $-4a^8 - 3a^6$

4)  $-10x$

**Find each product.**

5)  $(4n - 7)(4n + 7)$

6)  $(k + 6)(6k - 4)$

7)  $(-x^2 - 2x + 1)(6x^2 + x - 8)$

8)  $(-3m + 3n)^2$

**Factor each completely.**

9)  $x^2 - x - 2 = 0$

10)  $x^2 - 25 = 0$

$$11) \ x^3 - 4x^2 + 2x - 8 = 0$$

$$12) \ x^3 + 5x^2 - 4x - 20 = 0$$

$$13) \ x^4 + 12x^2 + 36 = 0$$

$$14) \ x^4 - 16x^2 + 63 = 0$$

$$15) \ x^4 - 8x = 0$$

$$16) \ x^4 + 125x = 0$$

$$17) \ 125x^4 - 64x = 0$$

$$18) \ -125x^4 + 8x = 0$$

Saint Joseph Convent School - English Program

Semester 1 | SY 2025-2026

G10 Advanced Math Quiz

Name: \_\_\_\_\_ Nickname: \_\_\_\_\_ G10/\_\_\_\_ Date: \_\_\_\_\_ Score: \_\_\_\_\_

**Name each polynomial by degree and number of terms.**

1)  $10n^3$

2)  $-8m^4 + 10m$

3)  $a^7$

4)  $-8r^2 - 2r + 6 - 10r^3$

**Find each product.**

5)  $(4x + 6)(4x - 5)$

6)  $(k - 4)(8k + 1)$

7)  $(6x^2 - 6x + 8)(4x^2 - 4x - 2)$

8)  $(5n^2 + 9m)(5n^2 - 9m)$

**Factor each completely.**

9)  $x^3 - 8x^2 + 15x = 0$

10)  $x^2 - 6x + 8 = 0$

$$11) \ x^3 - 2x^2 + 3x - 6 = 0$$

$$12) \ x^3 - x^2 - x + 1 = 0$$

$$13) \ x^4 + 8x^2 + 15 = 0$$

$$14) \ x^4 + 6x^2 - 16 = 0$$

$$15) \ x^4 - 27x = 0$$

$$16) \ x^4 + 125x = 0$$

$$17) \ -8x^4 + 27x = 0$$

$$18) \ 27x^4 - 8x = 0$$

Saint Joseph Convent School - English Program

Semester 1 | SY 2025-2026

G10 Advanced Math Quiz

Name: \_\_\_\_\_ Nickname: \_\_\_\_\_ G10/\_\_\_\_ Date: \_\_\_\_\_ Score: \_\_\_\_\_

**Name each polynomial by degree and number of terms.**

1)  $-10n$

2)  $-8x^2 + 1$

3)  $4 - 3n$

4)  $7x + 7x^2 + 1 + 6x^3$

**Find each product.**

5)  $(5n - 7)(5n + 4)$

6)  $(b - 2)(4b + 3)$

7)  $(-a^2 - 5a - 8)(-6a^2 + 2a - 2)$

8)  $(6a - 4b)^2$

**Factor each completely.**

9)  $x^2 + x - 2 = 0$

10)  $x^2 - x - 20 = 0$

$$11) \ x^3 - x^2 + 2x - 2 = 0$$

$$12) \ x^3 - x^2 + 3x - 3 = 0$$

$$13) \ x^4 + 3x^2 - 4 = 0$$

$$14) \ x^4 + 3x^2 - 28 = 0$$

$$15) \ x^4 + x = 0$$

$$16) \ x^4 - 125x = 0$$

$$17) \ 64x^4 + 27x = 0$$

$$18) \ 27x^4 + 64x = 0$$

Saint Joseph Convent School - English Program

Semester 1 | SY 2025-2026

G10 Advanced Math Quiz

Name: \_\_\_\_\_ Nickname: \_\_\_\_\_ G10/\_\_\_\_ Date: \_\_\_\_\_ Score: \_\_\_\_\_

**Name each polynomial by degree and number of terms.**

1)  $-1 + 10n^3 - 8n^2 - 8n^4 + 4n + 6n^7$

2)  $-2b^2 + 8b^6$

3)  $5x^7 + 5x^6 - 3 + 10x^4 - x^5 - 5x^2$

4)  $8v^4 - 9v^2 + 5v + 8v^3 - 2$

**Find each product.**

5)  $(4x + 8)(8x + 4)$

6)  $(5x - 3)(3x - 5)$

7)  $(-3b^2 + 3b + 6)(-8b^2 - b + 6)$

8)  $(5x - 4y^3)(5x + 4y^3)$

**Factor each completely.**

9)  $x^2 - x - 6 = 0$

10)  $x^2 - 16 = 0$

$$11) \ x^3 + 5x^2 - 2x - 10 = 0$$

$$12) \ x^3 - 5x^2 + 5x - 25 = 0$$

$$13) \ x^4 - 2x^2 - 48 = 0$$

$$14) \ x^4 - 3x^2 - 18 = 0$$

$$15) \ x^4 + x = 0$$

$$16) \ x^4 - 125x = 0$$

$$17) \ -125x^4 + 8x = 0$$

$$18) \ 125x^4 + 8x = 0$$

Saint Joseph Convent School - English Program

Semester 1 | SY 2025-2026

G10 Advanced Math Quiz

Name: \_\_\_\_\_ Nickname: \_\_\_\_\_ G10/\_\_\_\_ Date: \_\_\_\_\_ Score: \_\_\_\_\_

**Name each polynomial by degree and number of terms.**

1)  $4v^2 - 5v + 3 - 8v^3 - v^4 + v^5$

2)  $x^4$

3)  $-2$

4)  $9$

**Find each product.**

5)  $(2x + 6)(x - 5)$

6)  $(3x + 8)(5x + 7)$

7)  $(-6b^2 + 6b - 8)(-3b^2 - 8b + 2)$

8)  $(-6u - 2v)(-6u + 2v)$

**Factor each completely.**

9)  $x^2 + 2x - 8 = 0$

10)  $x^2 + 3x + 2 = 0$

$$11) \ x^3 - 3x^2 - 3x + 9 = 0$$

$$12) \ x^3 + 2x^2 - 5x - 10 = 0$$

$$13) \ x^4 - 7x^2 + 12 = 0$$

$$14) \ x^4 + 10x^2 + 24 = 0$$

$$15) \ x^4 + x = 0$$

$$16) \ x^4 + 64x = 0$$

$$17) \ 64x^4 + 27x = 0$$

$$18) \ 8x^4 - 27x = 0$$

Saint Joseph Convent School - English Program

Semester 1 | SY 2025-2026

G10 Advanced Math Quiz

Name: \_\_\_\_\_ Nickname: \_\_\_\_\_ G10/\_\_\_\_ Date: \_\_\_\_\_ Score: \_\_\_\_\_

**Name each polynomial by degree and number of terms.**

1)  $7n^2$

2)  $-7 - 6v^4 - 8v^3 + 9v^2 - 6v$

3)  $-10x^8$

4)  $2a^6 + 9a^7$

**Find each product.**

5)  $(4p + 6)(3p - 1)$

6)  $(7n - 3)(6n - 2)$

7)  $(5b^2 - 7b - 7)(-7b^2 + b + 6)$

8)  $(-x - 5y^2)^2$

**Factor each completely.**

9)  $x^2 - 9x + 20 = 0$

10)  $x^2 - 4 = 0$

$$11) \ x^3 + 2x^2 + 4x + 8 = 0$$

$$12) \ x^3 - 2x^2 + 3x - 6 = 0$$

$$13) \ x^4 - 2x^2 - 15 = 0$$

$$14) \ x^4 - 4x^2 + 3 = 0$$

$$15) \ x^4 - 8x = 0$$

$$16) \ x^4 + 8x = 0$$

$$17) \ -125x^4 + 64x = 0$$

$$18) \ 125x^4 + 64x = 0$$

Saint Joseph Convent School - English Program

Semester 1 | SY 2025-2026

G10 Advanced Math Quiz

Name: \_\_\_\_\_ Nickname: \_\_\_\_\_ G10/\_\_\_\_ Date: \_\_\_\_\_ Score: \_\_\_\_\_

**Name each polynomial by degree and number of terms.**

1)  $10p^5$

2)  $-5a + 8a^4 + 4 - 7a^2$

3)  $8p^7$

4)  $8 - 3m^5 + 8m^6 + 7m$

**Find each product.**

5)  $(7n - 3)(6n + 4)$

6)  $(2b - 1)(3b - 3)$

7)  $(6r^2 - 6r + 8)(-4r^2 - 3r + 3)$

8)  $(3y^2 + 10x)^2$

**Factor each completely.**

9)  $x^3 - 6x^2 + 9x = 0$

10)  $x^2 + x - 2 = 0$

$$11) \ x^3 + x^2 - 5x - 5 = 0$$

$$12) \ x^3 - 4x^2 - 5x + 20 = 0$$

$$13) \ x^4 - 4x^2 + 3 = 0$$

$$14) \ x^4 - 49 = 0$$

$$15) \ x^4 + 27x = 0$$

$$16) \ x^4 + x = 0$$

$$17) \ 27x^4 - 8x = 0$$

$$18) \ -8x^4 + 27x = 0$$

Saint Joseph Convent School - English Program

Semester 1 | SY 2025-2026

G10 Advanced Math Quiz

Name: \_\_\_\_\_ Nickname: \_\_\_\_\_ G10/\_\_\_\_ Date: \_\_\_\_\_ Score: \_\_\_\_\_

**Name each polynomial by degree and number of terms.**

1)  $-4b^5 + 6b^3 + 6b^2 + 5b^7$

2)  $3x^6 + x^7 - 4x^5$

3)  $-7x^2 - 6x^5$

4)  $-8m^5 + 1$

**Find each product.**

5)  $(6a - 3)(6a + 8)$

6)  $(6a + 4)(2a - 3)$

7)  $(8a^2 - 5a - 7)(5a^2 + 2a - 4)$

8)  $(-6y + 10x)(-6y - 10x)$

**Factor each completely.**

9)  $x^2 - 4x - 5 = 0$

10)  $x^2 - x - 12 = 0$

$$11) \ x^3 + 4x^2 + 3x + 12 = 0$$

$$12) \ x^3 + 2x^2 - 5x - 10 = 0$$

$$13) \ x^4 + 5x^2 - 14 = 0$$

$$14) \ x^4 - 9 = 0$$

$$15) \ x^4 + x = 0$$

$$16) \ x^4 - 27x = 0$$

$$17) \ 125x^4 + 8x = 0$$

$$18) \ -125x^4 + 8x = 0$$

Saint Joseph Convent School - English Program

Semester 1 | SY 2025-2026

G10 Advanced Math Quiz

Name: \_\_\_\_\_ Nickname: \_\_\_\_\_ G10/\_\_\_\_ Date: \_\_\_\_\_ Score: \_\_\_\_\_

**Name each polynomial by degree and number of terms.**

1)  $9 + 7x^7$

2)  $-3n^5$

3)  $-10x^5 + 7x$

4)  $7v^8$

**Find each product.**

5)  $(4m - 7)(3m + 8)$

6)  $(8v + 8)(6v + 1)$

7)  $(-p^2 + 4p + 3)(-p^2 + 3p - 8)$

8)  $(4x^5 + 4y^3)(4x^5 - 4y^3)$

**Factor each completely.**

9)  $x^2 + 2x - 3 = 0$

10)  $x^2 + 6x + 8 = 0$

$$11) \ x^3 - 3x^2 + 5x - 15 = 0$$

$$12) \ x^3 - 2x^2 - 2x + 4 = 0$$

$$13) \ x^4 + 6x^2 - 16 = 0$$

$$14) \ x^4 + 12x^2 + 32 = 0$$

$$15) \ x^4 - 125x = 0$$

$$16) \ x^4 + 64x = 0$$

$$17) \ 27x^4 - 8x = 0$$

$$18) \ 125x^4 + 27x = 0$$

Saint Joseph Convent School - English Program

Semester 1 | SY 2025-2026

G10 Advanced Math Quiz

Name: \_\_\_\_\_ Nickname: \_\_\_\_\_ G10/\_\_\_\_ Date: \_\_\_\_\_ Score: \_\_\_\_\_

**Name each polynomial by degree and number of terms.**

1)  $10x^3$

2)  $3k + 3k^5 - 3k^4$

3)  $-2v^8$

4)  $-6 - 6r$

**Find each product.**

5)  $(a - 6)(2a + 1)$

6)  $(7p - 6)(3p + 4)$

7)  $(-6x^2 - x - 8)(x^2 + x + 4)$

8)  $(-5y - 8x^3)(-5y + 8x^3)$

**Factor each completely.**

9)  $x^2 + x - 2 = 0$

10)  $x^2 + 4x + 4 = 0$

$$11) \ x^3 + 4x^2 + 2x + 8 = 0$$

$$12) \ x^3 + 4x^2 + x + 4 = 0$$

$$13) \ x^4 + 5x^2 - 36 = 0$$

$$14) \ x^4 - x^2 - 20 = 0$$

$$15) \ x^4 - 27x = 0$$

$$16) \ x^4 + 64x = 0$$

$$17) \ 64x^4 - 125x = 0$$

$$18) \ -125x^4 + 64x = 0$$

Saint Joseph Convent School - English Program

Semester 1 | SY 2025-2026

G10 Advanced Math Quiz

Name: \_\_\_\_\_ Nickname: \_\_\_\_\_ G10/\_\_\_\_ Date: \_\_\_\_\_ Score: \_\_\_\_\_

**Name each polynomial by degree and number of terms.**

1)  $8m^2 - 7m^6$

2)  $-9k^2 + 10k^3 - 8k^4 + 1 + 6k$

3)  $6m^3$

4)  $-8n^4 - 4 - 9n^3 + 9n^2$

**Find each product.**

5)  $(6x + 8)(x - 1)$

6)  $(k + 4)(3k - 2)$

7)  $(-4x^2 + 2x + 5)(-5x^2 + 6x + 6)$

8)  $(7x + 10y)(7x - 10y)$

**Factor each completely.**

9)  $x^3 + 8x^2 + 16x = 0$

10)  $x^2 + x - 2 = 0$

$$11) \ x^3 - 5x^2 - 3x + 15 = 0$$

$$12) \ x^3 - x^2 - x + 1 = 0$$

$$13) \ x^4 - 12x^2 + 32 = 0$$

$$14) \ x^4 + 5x^2 + 6 = 0$$

$$15) \ x^4 + 125x = 0$$

$$16) \ x^4 - 27x = 0$$

$$17) \ -125x^4 + 64x = 0$$

$$18) \ -125x^4 + 8x = 0$$

Saint Joseph Convent School - English Program

Semester 1 | SY 2025-2026

G10 Advanced Math Quiz

Name: \_\_\_\_\_ Nickname: \_\_\_\_\_ G10/\_\_\_\_ Date: \_\_\_\_\_ Score: \_\_\_\_\_

**Name each polynomial by degree and number of terms.**

1)  $-5$

2)  $4 + 9n^3$

3)  $4n^2 + 4n$

4)  $-9 - 9n - 7n^6 - 4n^3 - 10n^2$

**Find each product.**

5)  $(7a - 1)(7a - 8)$

6)  $(4n - 2)(5n - 5)$

7)  $(4x^2 - 3x + 3)(-2x^2 - 6x + 8)$

8)  $(-2u^2 + 6v)^2$

**Factor each completely.**

9)  $x^3 - 25x = 0$

10)  $x^2 - 9 = 0$

$$11) \ x^3 + 5x^2 + 5x + 25 = 0$$

$$12) \ x^3 + 3x^2 - x - 3 = 0$$

$$13) \ x^4 + 14x^2 + 48 = 0$$

$$14) \ x^4 - 9 = 0$$

$$15) \ x^4 + 27x = 0$$

$$16) \ x^4 + x = 0$$

$$17) \ 64x^4 - 125x = 0$$

$$18) \ 64x^4 + 125x = 0$$

Saint Joseph Convent School - English Program

Semester 1 | SY 2025-2026

G10 Advanced Math Quiz

Name: \_\_\_\_\_ Nickname: \_\_\_\_\_ G10/\_\_\_\_ Date: \_\_\_\_\_ Score: \_\_\_\_\_

**Name each polynomial by degree and number of terms.**

1)  $9n^8$

2)  $-3n^3$

3)  $9 - 5p^7$

4)  $-7n^6 + 8n^5 + 10n^7 - 10$

**Find each product.**

5)  $(8a + 8)(6a - 1)$

6)  $(8n - 4)(2n + 3)$

7)  $(-b^2 + b - 7)(-8b^2 - 2b + 2)$

8)  $(5a - 10b)^2$

**Factor each completely.**

9)  $x^2 + 6x + 8 = 0$

10)  $x^2 - 10x + 25 = 0$

$$11) \ x^3 + 5x^2 - 5x - 25 = 0$$

$$12) \ x^3 - x^2 + x - 1 = 0$$

$$13) \ x^4 - x^2 - 42 = 0$$

$$14) \ x^4 - 2x^2 + 1 = 0$$

$$15) \ x^4 + x = 0$$

$$16) \ x^4 - 27x = 0$$

$$17) \ 64x^4 - 125x = 0$$

$$18) \ 8x^4 + 27x = 0$$

Saint Joseph Convent School - English Program

Semester 1 | SY 2025-2026

G10 Advanced Math Quiz

Name: \_\_\_\_\_ Nickname: \_\_\_\_\_ G10/\_\_\_\_ Date: \_\_\_\_\_ Score: \_\_\_\_\_

**Name each polynomial by degree and number of terms.**

1)  $-4x^5 - 9x^4 + x^3 + 3x$

2)  $9k^4 - 6$

3)  $7n^3 - 6n - 3n^8 - 3n^2 - 4n^5 + 2n^7$

4)  $8n^4 - 3n^5$

**Find each product.**

5)  $(7m + 7)(2m + 6)$

6)  $(7b - 3)(b - 1)$

7)  $(-2x^2 + 2x - 7)(5x^2 + 4x + 1)$

8)  $(9v^2 - 4u)^2$

**Factor each completely.**

9)  $x^3 - 7x^2 + 12x = 0$

10)  $x^2 - x - 6 = 0$

$$11) \ x^3 - 4x^2 - 3x + 12 = 0$$

$$12) \ x^3 - 3x^2 - 4x + 12 = 0$$

$$13) \ x^4 - 9x^2 + 20 = 0$$

$$14) \ x^4 - x^2 - 42 = 0$$

$$15) \ x^4 - 8x = 0$$

$$16) \ x^4 - 64x = 0$$

$$17) \ 125x^4 - 27x = 0$$

$$18) \ 27x^4 + 64x = 0$$

Saint Joseph Convent School - English Program

Semester 1 | SY 2025-2026

G10 Advanced Math Quiz

Name: \_\_\_\_\_ Nickname: \_\_\_\_\_ G10/\_\_\_\_ Date: \_\_\_\_\_ Score: \_\_\_\_\_

**Name each polynomial by degree and number of terms.**

1)  $-3n^3 - 8n^5 - 5n^4 - 6n^2 - 5$

2)  $8r^2$

3)  $5a$

4)  $9v^2 - 6v^6 + 2v^3 - 2v^8 + v^7$

**Find each product.**

5)  $(5b + 3)(4b + 3)$

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

7)  $(3n^2 - 5n + 6)(-7n^2 - 5n - 7)$

8)  $(-4x - 6y)(-4x + 6y)$

**Factor each completely.**

9)  $x^2 + 6x + 9 = 0$

10)  $x^2 - 4x + 3 = 0$

$$11) \ x^3 + 2x^2 - 4x - 8 = 0$$

$$12) \ x^3 + 5x^2 + 5x + 25 = 0$$

$$13) \ x^4 + 3x^2 - 54 = 0$$

$$14) \ x^4 - 3x^2 - 10 = 0$$

$$15) \ x^4 + x = 0$$

$$16) \ x^4 + 27x = 0$$

$$17) \ 64x^4 + 27x = 0$$

$$18) \ -27x^4 + 125x = 0$$

Saint Joseph Convent School - English Program

Semester 1 | SY 2025-2026

G10 Advanced Math Quiz

Name: \_\_\_\_\_ Nickname: \_\_\_\_\_ G10/\_\_\_\_ Date: \_\_\_\_\_ Score: \_\_\_\_\_

**Name each polynomial by degree and number of terms.**

1)  $9a - a^4 + a^3 + 1$

2)  $-10r^6 + 6r^5 - 9$

3)  $3b$

4)  $-10n^8 + 2n^7 + 6n^4 + 7n$

**Find each product.**

5)  $(2x + 5)(x - 4)$

6)  $(8m - 5)(6m - 2)$

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

8)  $(3y^2 - 10x)^2$

**Factor each completely.**

9)  $x^2 - x - 2 = 0$

10)  $x^2 + 3x - 10 = 0$

$$11) \ x^3 - 5x^2 - 3x + 15 = 0$$

$$12) \ x^3 + 5x^2 + x + 5 = 0$$

$$13) \ x^4 - 2x^2 - 24 = 0$$

$$14) \ x^4 - 6x^2 - 16 = 0$$

$$15) \ x^4 - x = 0$$

$$16) \ x^4 - 8x = 0$$

$$17) \ 27x^4 - 8x = 0$$

$$18) \ 125x^4 + 64x = 0$$

Saint Joseph Convent School - English Program

Semester 1 | SY 2025-2026

G10 Advanced Math Quiz

Name: \_\_\_\_\_ Nickname: \_\_\_\_\_ G10/\_\_\_\_ Date: \_\_\_\_\_ Score: \_\_\_\_\_

**Name each polynomial by degree and number of terms.**

1)  $-6n^8$

2)  $7x^2$

3)  $-10x^2 + 5$

4)  $4r^3 + 7r - 10r^2 + 8r^5 + 1$

**Find each product.**

5)  $(6x - 3)(x + 8)$

6)  $(7n + 1)(5n + 2)$

7)  $(6x^2 + 3x + 4)(6x^2 + 7x - 3)$

8)  $(-6x - 6y)^2$

**Factor each completely.**

9)  $x^2 - 16 = 0$

10)  $x^2 + 9x + 20 = 0$

$$11) \ x^3 + 3x^2 + 4x + 12 = 0$$

$$12) \ x^3 + 3x^2 + x + 3 = 0$$

$$13) \ x^4 - 6x^2 + 8 = 0$$

$$14) \ x^4 - 13x^2 + 40 = 0$$

$$15) \ x^4 + 27x = 0$$

$$16) \ x^4 + 8x = 0$$

$$17) \ 8x^4 + 27x = 0$$

$$18) \ -125x^4 + 64x = 0$$

Saint Joseph Convent School - English Program

Semester 1 | SY 2025-2026

G10 Advanced Math Quiz

Name: \_\_\_\_\_ Nickname: \_\_\_\_\_ G10/\_\_\_\_ Date: \_\_\_\_\_ Score: \_\_\_\_\_

**Name each polynomial by degree and number of terms.**

1)  $3x^4 - x^6$

2)  $-6x^5$

3)  $-3x^6 - 6x^7 - 8x^5 + 3x^4 + x^2 - 1$

4)  $7n^2$

**Find each product.**

5)  $(2n + 6)(6n + 1)$

6)  $(7x - 8)(6x - 7)$

7)  $(-6x^2 - 7x - 6)(3x^2 - 2x - 5)$

8)  $(8x^2 + 8y)(8x^2 - 8y)$

**Factor each completely.**

9)  $x^2 + 10x + 25 = 0$

10)  $x^2 - 2x - 8 = 0$

$$11) \ x^3 - x^2 - 2x + 2 = 0$$

$$12) \ x^3 - 5x^2 - 4x + 20 = 0$$

$$13) \ x^4 - 14x^2 + 49 = 0$$

$$14) \ x^4 - 3x^2 - 10 = 0$$

$$15) \ x^4 - 27x = 0$$

$$16) \ x^4 - 125x = 0$$

$$17) \ 27x^4 + 125x = 0$$

$$18) \ -27x^4 + 8x = 0$$

Saint Joseph Convent School - English Program

Semester 1 | SY 2025-2026

G10 Advanced Math Quiz

Name: \_\_\_\_\_ Nickname: \_\_\_\_\_ G10/\_\_\_\_ Date: \_\_\_\_\_ Score: \_\_\_\_\_

**Name each polynomial by degree and number of terms.**

1)  $-7m^3 - m^4 + 5$

2)  $5m^7$

3)  $-10 + 10a^5$

4)  $-2n^3 - 3 + 3n^5 - 3n - 9n^4 - 3n^2$

**Find each product.**

5)  $(8x - 4)(4x - 2)$

6)  $(8n + 3)(6n + 4)$

7)  $(-2n^2 - 7n - 1)(2n^2 + 6n + 5)$

8)  $(-8y + 7x)(-8y - 7x)$

**Factor each completely.**

9)  $x^2 - 5x + 4 = 0$

10)  $x^2 - 4x + 3 = 0$

$$11) \ x^3 + 5x^2 + 4x + 20 = 0$$

$$12) \ x^3 + 4x^2 + 2x + 8 = 0$$

$$13) \ x^4 - 16x^2 + 63 = 0$$

$$14) \ x^4 + 18x^2 + 81 = 0$$

$$15) \ x^4 - 64x = 0$$

$$16) \ x^4 - x = 0$$

$$17) \ 125x^4 + 64x = 0$$

$$18) \ 125x^4 + 8x = 0$$

Saint Joseph Convent School - English Program

Semester 1 | SY 2025-2026

G10 Advanced Math Quiz

Name: \_\_\_\_\_ Nickname: \_\_\_\_\_ G10/\_\_\_\_ Date: \_\_\_\_\_ Score: \_\_\_\_\_

**Name each polynomial by degree and number of terms.**

1)  $-4x^2 + 9x$

2)  $-10$

3)  $3x + x^3 - 5x^2 + 10x^5 - 3x^6 - 5x^7$

4)  $-5 + 4x$

**Find each product.**

5)  $(2a - 3)(5a + 5)$

6)  $(8b - 3)(4b + 5)$

7)  $(-6m^2 + m + 4)(-5m^2 - 5m - 1)$

8)  $(7a + b)(7a - b)$

**Factor each completely.**

9)  $x^2 + 9x + 20 = 0$

10)  $x^2 + x - 12 = 0$

$$11) \ x^3 - 3x^2 + 2x - 6 = 0$$

$$12) \ x^3 - x^2 - x + 1 = 0$$

$$13) \ x^4 - 81 = 0$$

$$14) \ x^4 - 10x^2 + 16 = 0$$

$$15) \ x^4 - 125x = 0$$

$$16) \ x^4 - 64x = 0$$

$$17) \ 125x^4 - 8x = 0$$

$$18) \ -8x^4 + 125x = 0$$

Saint Joseph Convent School - English Program

Semester 1 | SY 2025-2026

G10 Advanced Math Quiz

Name: \_\_\_\_\_ Nickname: \_\_\_\_\_ G10/\_\_\_\_ Date: \_\_\_\_\_ Score: \_\_\_\_\_

**Name each polynomial by degree and number of terms.**

1)  $6v$

2)  $9 + 6n - 3n^3 + 6n^4$

3)  $-3n$

4)  $-10m^2$

**Find each product.**

5)  $(7r + 8)(r + 3)$

6)  $(7n - 8)(8n + 8)$

7)  $(2b^2 + 6b + 8)(-4b^2 - 4b - 7)$

8)  $(-6x^4 - 7y^3)^2$

**Factor each completely.**

9)  $x^2 - 2x - 15 = 0$

10)  $x^2 + 6x + 8 = 0$

$$11) \ x^3 - 3x^2 + 2x - 6 = 0$$

$$12) \ x^3 - 5x^2 - 2x + 10 = 0$$

$$13) \ x^4 - 4x^2 - 21 = 0$$

$$14) \ x^4 + 14x^2 + 48 = 0$$

$$15) \ x^4 + 27x = 0$$

$$16) \ x^4 + 125x = 0$$

$$17) \ 64x^4 - 125x = 0$$

$$18) \ 125x^4 + 27x = 0$$

Saint Joseph Convent School - English Program

Semester 1 | SY 2025-2026

G10 Advanced Math Quiz

Name: \_\_\_\_\_ Nickname: \_\_\_\_\_ G10/\_\_\_\_ Date: \_\_\_\_\_ Score: \_\_\_\_\_

**Name each polynomial by degree and number of terms.**

1)  $10r^5 - 6r^2 + 1 - 5r - 10r^4$

2)  $-2a + 7a^3 - 6a^2 - 2a^4$

3)  $-5n^5 - n^3 + 5n^8 - 8n^2 + 10n^7 - 4$

4)  $2 + 7x^3 - 4x^4 + 4x^6$

**Find each product.**

5)  $(7p - 5)(6p + 6)$

6)  $(5x - 1)(3x + 2)$

7)  $(8n^2 + 7n - 4)(-5n^2 + 7n + 5)$

8)  $(-u^2 + 4v)^2$

**Factor each completely.**

9)  $x^3 - 5x^2 + 4x = 0$

10)  $x^2 + 2x - 15 = 0$

$$11) \ x^3 - 4x^2 + 3x - 12 = 0$$

$$12) \ x^3 + 3x^2 - 5x - 15 = 0$$

$$13) \ x^4 + 11x^2 + 18 = 0$$

$$14) \ x^4 + x^2 - 20 = 0$$

$$15) \ x^4 + 125x = 0$$

$$16) \ x^4 + x = 0$$

$$17) \ 27x^4 + 125x = 0$$

$$18) \ 125x^4 - 8x = 0$$

Saint Joseph Convent School - English Program

Semester 1 | SY 2025-2026

G10 Advanced Math Quiz

Name: \_\_\_\_\_ Nickname: \_\_\_\_\_ G10/\_\_\_\_ Date: \_\_\_\_\_ Score: \_\_\_\_\_

**Name each polynomial by degree and number of terms.**

1)  $6n + 10n^2 - 7$

2)  $-9m^8 - 7m^6 + 5m - m^7 + 4m^5$

3)  $-9$

4)  $-2a + 5a^4 - 4a^2 - 8$

**Find each product.**

5)  $(3n - 8)(6n + 2)$

6)  $(4n + 6)(2n + 8)$

7)  $(m^2 + m - 5)(-m^2 + 3m - 2)$

8)  $(4u^2 - 4v)^2$

**Factor each completely.**

9)  $x^2 - 5x + 6 = 0$

10)  $x^2 - 5x + 4 = 0$

$$11) \ x^3 + 5x^2 + 3x + 15 = 0$$

$$12) \ x^3 - 2x^2 + 3x - 6 = 0$$

$$13) \ x^4 - x^2 - 30 = 0$$

$$14) \ x^4 + 6x^2 - 27 = 0$$

$$15) \ x^4 - 27x = 0$$

$$16) \ x^4 + x = 0$$

$$17) \ 27x^4 - 64x = 0$$

$$18) \ 125x^4 + 27x = 0$$

Saint Joseph Convent School - English Program

Semester 1 | SY 2025-2026

G10 Advanced Math Quiz

Name: \_\_\_\_\_ Nickname: \_\_\_\_\_ G10/\_\_\_\_ Date: \_\_\_\_\_ Score: \_\_\_\_\_

**Name each polynomial by degree and number of terms.**

1)  $8x^6 + 7x^7 + x^2 + 9x^8$

2)  $-9 + 3v^3 - 4v - 5v^4 + 8v^5 - 2v^6$

3)  $3b^2 + 9b^5 + 6b - 5b^3$

4)  $6x^6$

**Find each product.**

5)  $(6x + 1)(4x - 8)$

6)  $(2x + 1)(3x + 4)$

7)  $(7x^2 + 6x - 4)(3x^2 + 6x + 5)$

8)  $(3a^2 - 6b^2)(3a^2 + 6b^2)$

**Factor each completely.**

9)  $x^2 - x - 2 = 0$

10)  $x^2 - 7x + 12 = 0$

$$11) \ x^3 + x^2 + 4x + 4 = 0$$

$$12) \ x^3 + 5x^2 + 2x + 10 = 0$$

$$13) \ x^4 + 13x^2 + 40 = 0$$

$$14) \ x^4 - 13x^2 + 40 = 0$$

$$15) \ x^4 - x = 0$$

$$16) \ x^4 + 8x = 0$$

$$17) \ 27x^4 + 125x = 0$$

$$18) \ -27x^4 + 64x = 0$$

Saint Joseph Convent School - English Program

Semester 1 | SY 2025-2026

G10 Advanced Math Quiz

Name: \_\_\_\_\_ Nickname: \_\_\_\_\_ G10/\_\_\_\_ Date: \_\_\_\_\_ Score: \_\_\_\_\_

**Name each polynomial by degree and number of terms.**

1)  $5v^3 - 2v^6 - 2$

2)  $r^4 - 5 - 3r^2 - r - r^6 - 10r^5$

3)  $-10n^5 - 2n^6 + 9 + 7n^3$

4)  $-3r$

**Find each product.**

5)  $(7n + 6)(5n + 3)$

6)  $(7n - 6)(n - 7)$

7)  $(3x^2 - x + 6)(3x^2 + 6x - 4)$

8)  $(7m + 7n)^2$

**Factor each completely.**

9)  $x^2 - 3x + 2 = 0$

10)  $x^2 - 2x - 8 = 0$

$$11) \ x^3 - 2x^2 + 4x - 8 = 0$$

$$12) \ x^3 - 5x^2 + x - 5 = 0$$

$$13) \ x^4 - x^2 - 6 = 0$$

$$14) \ x^4 - x^2 - 12 = 0$$

$$15) \ x^4 - 8x = 0$$

$$16) \ x^4 - 64x = 0$$

$$17) \ 64x^4 + 27x = 0$$

$$18) \ -8x^4 + 125x = 0$$

Saint Joseph Convent School - English Program

Semester 1 | SY 2025-2026

G10 Advanced Math Quiz

Name: \_\_\_\_\_ Nickname: \_\_\_\_\_ G10/\_\_\_\_ Date: \_\_\_\_\_ Score: \_\_\_\_\_

**Name each polynomial by degree and number of terms.**

1)  $-9x^5$

2)  $-4r + 5r^3$

3)  $8k^3 + 9k^2 - k - 3 + 7k^7 - 7k^6$

4)  $8x - x^2 - 7 - 5x^3$

**Find each product.**

5)  $(x - 1)(8x - 4)$

6)  $(4n + 6)(6n + 7)$

7)  $(-n^2 - n - 2)(8n^2 - 4n + 2)$

8)  $(6x + 6y)^2$

**Factor each completely.**

9)  $x^2 + 5x + 4 = 0$

10)  $x^3 - 7x^2 + 10x = 0$

$$11) \ x^3 + 5x^2 - 4x - 20 = 0$$

$$12) \ x^3 + 3x^2 - x - 3 = 0$$

$$13) \ x^4 - 11x^2 + 28 = 0$$

$$14) \ x^4 - 11x^2 + 30 = 0$$

$$15) \ x^4 - 27x = 0$$

$$16) \ x^4 + 125x = 0$$

$$17) \ -125x^4 + 27x = 0$$

$$18) \ -125x^4 + 8x = 0$$

Saint Joseph Convent School - English Program

Semester 1 | SY 2025-2026

G10 Advanced Math Quiz

Name: \_\_\_\_\_ Nickname: \_\_\_\_\_ G10/\_\_\_\_ Date: \_\_\_\_\_ Score: \_\_\_\_\_

**Name each polynomial by degree and number of terms.**

1)  $2k^4$

2)  $-5x^5 + 5x - 10 + 5x^4$

3)  $4 - 2n^5$

4)  $2k$

**Find each product.**

5)  $(8x + 4)(2x + 6)$

6)  $(2n + 3)(2n - 8)$

7)  $(-p^2 + 2p - 7)(-3p^2 + 5p - 2)$

8)  $(-9y - 3x)^2$

**Factor each completely.**

9)  $x^2 - 10x + 25 = 0$

10)  $x^2 + 4x + 3 = 0$

$$11) \ x^3 + 5x^2 + 3x + 15 = 0$$

$$12) \ x^3 + x^2 - x - 1 = 0$$

$$13) \ x^4 + 10x^2 + 24 = 0$$

$$14) \ x^4 + 17x^2 + 72 = 0$$

$$15) \ x^4 + 64x = 0$$

$$16) \ x^4 - 125x = 0$$

$$17) \ -27x^4 + 125x = 0$$

$$18) \ 125x^4 - 8x = 0$$

Saint Joseph Convent School - English Program

Semester 1 | SY 2025-2026

G10 Advanced Math Quiz

Name: \_\_\_\_\_ Nickname: \_\_\_\_\_ G10/\_\_\_\_ Date: \_\_\_\_\_ Score: \_\_\_\_\_

**Name each polynomial by degree and number of terms.**

1)  $-6$

2)  $8x + 5x^7$

3)  $9n^4 + 5n^2 + 7n^3 + 3n^6$

4)  $2n + n^8 - 3n^5$

**Find each product.**

5)  $(8a - 2)(4a - 1)$

6)  $(5v + 7)(4v - 7)$

7)  $(-5n^2 + 3n + 2)(-8n^2 + 3n - 4)$

8)  $(7a + 9b)^2$

**Factor each completely.**

9)  $x^2 + 6x + 9 = 0$

10)  $x^2 + x - 6 = 0$

$$11) \ x^3 + 4x^2 - 4x - 16 = 0$$

$$12) \ x^3 - 2x^2 + x - 2 = 0$$

$$13) \ x^4 + 16x^2 + 64 = 0$$

$$14) \ x^4 + 11x^2 + 18 = 0$$

$$15) \ x^4 + 27x = 0$$

$$16) \ x^4 + 8x = 0$$

$$17) \ 27x^4 + 125x = 0$$

$$18) \ -125x^4 + 27x = 0$$

Saint Joseph Convent School - English Program

Semester 1 | SY 2025-2026

G10 Advanced Math Quiz

Name: \_\_\_\_\_ Nickname: \_\_\_\_\_ G10/\_\_\_\_ Date: \_\_\_\_\_ Score: \_\_\_\_\_

**Name each polynomial by degree and number of terms.**

1)  $2 + 5k^3 + 8k$

2)  $-10 + 6k^3 + 6k$

3)  $-8n^4$

4)  $-2k^6 - 7 - 3k + 9k^3 - 7k^4 - 10k^7$

**Find each product.**

5)  $(3n - 4)(8n + 5)$

6)  $(2b + 5)(7b + 5)$

7)  $(3a^2 - 5a + 5)(-3a^2 - 6a + 7)$

8)  $(-5x - 2y)^2$

**Factor each completely.**

9)  $x^2 - 8x + 15 = 0$

10)  $x^2 - x - 2 = 0$

$$11) \ x^3 + 3x^2 + 2x + 6 = 0$$

$$12) \ x^3 + 2x^2 + 4x + 8 = 0$$

$$13) \ x^4 + x^2 - 42 = 0$$

$$14) \ x^4 - 14x^2 + 45 = 0$$

$$15) \ x^4 - 27x = 0$$

$$16) \ x^4 + x = 0$$

$$17) \ 64x^4 + 27x = 0$$

$$18) \ 27x^4 - 8x = 0$$

Saint Joseph Convent School - English Program

Semester 1 | SY 2025-2026

G10 Advanced Math Quiz

Name: \_\_\_\_\_ Nickname: \_\_\_\_\_ G10/\_\_\_\_ Date: \_\_\_\_\_ Score: \_\_\_\_\_

**Name each polynomial by degree and number of terms.**

1)  $9a^3 - a^2$

2)  $-x + 5$

3)  $-2n^6 + n^2 + 6n$

4)  $9n + 8n^2$

**Find each product.**

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

6)  $(6v - 6)(2v + 5)$

7)  $(8v^2 + 3v - 4)(5v^2 - v + 5)$

8)  $(8x + 10y)(8x - 10y)$

**Factor each completely.**

9)  $x^2 - x - 2 = 0$

10)  $x^2 + 2x - 15 = 0$

$$11) \ x^3 - 3x^2 + x - 3 = 0$$

$$12) \ x^3 + 3x^2 + 4x + 12 = 0$$

$$13) \ x^4 + x^2 - 42 = 0$$

$$14) \ x^4 - x^2 - 12 = 0$$

$$15) \ x^4 + 125x = 0$$

$$16) \ x^4 - 27x = 0$$

$$17) \ 27x^4 - 64x = 0$$

$$18) \ 125x^4 - 8x = 0$$

Saint Joseph Convent School - English Program

Semester 1 | SY 2025-2026

G10 Advanced Math Quiz

Name: \_\_\_\_\_ Nickname: \_\_\_\_\_ G10/\_\_\_\_ Date: \_\_\_\_\_ Score: \_\_\_\_\_

**Name each polynomial by degree and number of terms.**

1)  $7n^7$

2)  $8n^7 - 8n^5 + 2n - n^2 - 5 + 10n^4$

3)  $-2r^5 + 7 - r + r^6$

4)  $-x$

**Find each product.**

5)  $(8p + 1)(6p + 1)$

6)  $(4v + 7)(5v - 6)$

7)  $(4x^2 + 6x - 8)(6x^2 + 2x - 2)$

8)  $(6x + 10y)(6x - 10y)$

**Factor each completely.**

9)  $x^2 - x - 20 = 0$

10)  $x^2 - 5x + 6 = 0$

$$11) \ x^3 + 5x^2 - 4x - 20 = 0$$

$$12) \ x^3 - 3x^2 + 2x - 6 = 0$$

$$13) \ x^4 - 7x^2 - 18 = 0$$

$$14) \ x^4 + 15x^2 + 54 = 0$$

$$15) \ x^4 + 8x = 0$$

$$16) \ x^4 + 64x = 0$$

$$17) \ 8x^4 + 125x = 0$$

$$18) \ 125x^4 + 64x = 0$$

Saint Joseph Convent School - English Program

Semester 1 | SY 2025-2026

G10 Advanced Math Quiz

Name: \_\_\_\_\_ Nickname: \_\_\_\_\_ G10/\_\_\_\_ Date: \_\_\_\_\_ Score: \_\_\_\_\_

**Name each polynomial by degree and number of terms.**

1)  $3 + 3k^2$

2)  $3a^4 - 3a^6 + 2a + 4a^5 + 3 + 3a^2$

3)  $10x$

4)  $-2$

**Find each product.**

5)  $(6x - 8)(4x - 3)$

6)  $(x + 6)(8x + 1)$

7)  $(3x^2 + x - 1)(x^2 + 8x - 2)$

8)  $(10x + 10y)^2$

**Factor each completely.**

9)  $x^2 + 8x + 15 = 0$

10)  $x^2 + 6x + 5 = 0$

$$11) \ x^3 - 2x^2 - 3x + 6 = 0$$

$$12) \ x^3 + 4x^2 + x + 4 = 0$$

$$13) \ x^4 + 6x^2 + 5 = 0$$

$$14) \ x^4 - 14x^2 + 49 = 0$$

$$15) \ x^4 + 8x = 0$$

$$16) \ x^4 - 125x = 0$$

$$17) \ 125x^4 + 8x = 0$$

$$18) \ 27x^4 + 64x = 0$$

Saint Joseph Convent School - English Program

Semester 1 | SY 2025-2026

G10 Advanced Math Quiz

Name: \_\_\_\_\_ Nickname: \_\_\_\_\_ G10/\_\_\_\_ Date: \_\_\_\_\_ Score: \_\_\_\_\_

**Name each polynomial by degree and number of terms.**

1)  $1 + 7n^3 - n^4 - 5n^2 - 8n$

2)  $-4n^7$

3)  $-1 + 10x^2 + 9x^5 + 2x^3 + 3x$

4)  $-4x^6 + 3x$

**Find each product.**

5)  $(6n - 6)(n + 6)$

6)  $(8n + 7)(6n - 6)$

7)  $(7m^2 + 5m - 2)(-6m^2 + 6m - 7)$

8)  $(7a - 10b)^2$

**Factor each completely.**

9)  $x^2 + x - 12 = 0$

10)  $x^2 + x - 6 = 0$

$$11) \ x^3 + x^2 + 2x + 2 = 0$$

$$12) \ x^3 + 2x^2 + 3x + 6 = 0$$

$$13) \ x^4 + 3x^2 - 18 = 0$$

$$14) \ x^4 + 7x^2 + 12 = 0$$

$$15) \ x^4 - 64x = 0$$

$$16) \ x^4 + 27x = 0$$

$$17) \ 27x^4 + 64x = 0$$

$$18) \ 27x^4 + 8x = 0$$

Saint Joseph Convent School - English Program

Semester 1 | SY 2025-2026

G10 Advanced Math Quiz

Name: \_\_\_\_\_ Nickname: \_\_\_\_\_ G10/\_\_\_\_ Date: \_\_\_\_\_ Score: \_\_\_\_\_

**Name each polynomial by degree and number of terms.**

1)  $-2m^2$

2)  $-5a - 10$

3)  $5n^3 - 7n$

4)  $3n^7 - 3n^4$

**Find each product.**

5)  $(7x + 6)(6x + 1)$

6)  $(5r + 8)(5r - 4)$

7)  $(8x^2 - 8x - 2)(2x^2 - 4x + 1)$

8)  $(-10x^2 - 2y)(-10x^2 + 2y)$

**Factor each completely.**

9)  $x^2 + 5x + 6 = 0$

10)  $x^2 + 3x - 4 = 0$

$$11) \ x^3 - 2x^2 + 4x - 8 = 0$$

$$12) \ x^3 - x^2 + 3x - 3 = 0$$

$$13) \ x^4 + 4x^2 + 3 = 0$$

$$14) \ x^4 - 5x^2 - 36 = 0$$

$$15) \ x^4 + 8x = 0$$

$$16) \ x^4 - x = 0$$

$$17) \ 8x^4 + 27x = 0$$

$$18) \ -125x^4 + 27x = 0$$

Saint Joseph Convent School - English Program

Semester 1 | SY 2025-2026

G10 Advanced Math Quiz

Name: \_\_\_\_\_ Nickname: \_\_\_\_\_ G10/\_\_\_\_ Date: \_\_\_\_\_ Score: \_\_\_\_\_

**Name each polynomial by degree and number of terms.**

1)  $x + 10$

2)  $-9x^6$

3)  $-x^3 + 10x^4 - 9x + 10 + 7x^2$

4)  $9n^5 - 3n + 4n^3$

**Find each product.**

5)  $(6p + 2)(4p - 3)$

6)  $(6a - 4)(6a - 8)$

7)  $(-5n^2 - 3n + 8)(-7n^2 + 7n + 2)$

8)  $(5x + y)(5x - y)$

**Factor each completely.**

9)  $x^2 + 4x + 3 = 0$

10)  $x^2 + 10x + 25 = 0$

$$11) \ x^3 + 2x^2 - 5x - 10 = 0$$

$$12) \ x^3 - 5x^2 + x - 5 = 0$$

$$13) \ x^4 + 4x^2 - 12 = 0$$

$$14) \ x^4 - 12x^2 + 35 = 0$$

$$15) \ x^4 + 64x = 0$$

$$16) \ x^4 + 125x = 0$$

$$17) \ 125x^4 - 8x = 0$$

$$18) \ -27x^4 + 125x = 0$$

Saint Joseph Convent School - English Program

Semester 1 | SY 2025-2026

G10 Advanced Math Quiz

Name: \_\_\_\_\_ Nickname: \_\_\_\_\_ G10/\_\_\_\_ Date: \_\_\_\_\_ Score: \_\_\_\_\_

**Name each polynomial by degree and number of terms.**

1)  $5x^6 + 5x^5 + 4x^3 + 5x^7 - 2 + 3x^4$

2)  $-6p - 7 - 10p^4 - p^3 - 2p^2$

3)  $4v + 4v^3$

4)  $-6k^4$

**Find each product.**

5)  $(7x - 3)(7x + 5)$

6)  $(8x - 4)(5x - 6)$

7)  $(-8k^2 - 8k + 4)(-k^2 + 4k + 4)$

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

**Factor each completely.**

9)  $x^2 + 5x + 6 = 0$

10)  $x^3 + 10x^2 + 25x = 0$

$$11) \ x^3 + 5x^2 + 3x + 15 = 0$$

$$12) \ x^3 - x^2 - 2x + 2 = 0$$

$$13) \ x^4 - 18x^2 + 81 = 0$$

$$14) \ x^4 - 4x^2 - 12 = 0$$

$$15) \ x^4 - 125x = 0$$

$$16) \ x^4 + x = 0$$

$$17) \ 27x^4 - 8x = 0$$

$$18) \ 8x^4 + 125x = 0$$

Saint Joseph Convent School - English Program

Semester 1 | SY 2025-2026

G10 Advanced Math Quiz

Name: \_\_\_\_\_ Nickname: \_\_\_\_\_ G10/\_\_\_\_ Date: \_\_\_\_\_ Score: \_\_\_\_\_

**Name each polynomial by degree and number of terms.**

1)  $5b^4 - 6 - 10b^2$

2)  $-4k + 5k^2$

3)  $-7x^3 + 7x^6 + 1 + 7x^2 - 6x$

4)  $-10x^4 + 2$

**Find each product.**

5)  $(6m + 4)(7m - 8)$

6)  $(5b - 1)(3b + 1)$

7)  $(-7n^2 - 5n + 6)(3n^2 - 2n - 1)$

8)  $(-9u - 2v^2)^2$

**Factor each completely.**

9)  $x^2 + 10x + 25 = 0$

10)  $x^2 - 8x + 15 = 0$

$$11) \ x^3 - x^2 - 4x + 4 = 0$$

$$12) \ x^3 + 3x^2 - 5x - 15 = 0$$

$$13) \ x^4 + 12x^2 + 35 = 0$$

$$14) \ x^4 + 14x^2 + 45 = 0$$

$$15) \ x^4 + 64x = 0$$

$$16) \ x^4 - 125x = 0$$

$$17) \ 8x^4 + 125x = 0$$

$$18) \ 64x^4 - 125x = 0$$

Saint Joseph Convent School - English Program

Semester 1 | SY 2025-2026

G10 Advanced Math Quiz

Name: \_\_\_\_\_ Nickname: \_\_\_\_\_ G10/\_\_\_\_ Date: \_\_\_\_\_ Score: \_\_\_\_\_

**Name each polynomial by degree and number of terms.**

1)  $v + 6v^2 + 2v^5 - v^4 + 5v^3$

2)  $2 + 2v$

3)  $5a^2$

4)  $4 - 2n$

**Find each product.**

5)  $(3r + 1)(2r - 3)$

6)  $(8x - 2)(x + 6)$

7)  $(2v^2 + 2v - 8)(6v^2 - 7v + 4)$

8)  $(3v + 2u^2)(3v - 2u^2)$

**Factor each completely.**

9)  $x^2 + 3x + 2 = 0$

10)  $x^2 - 7x + 10 = 0$

$$11) \ x^3 - 2x^2 + 3x - 6 = 0$$

$$12) \ x^3 - x^2 - 3x + 3 = 0$$

$$13) \ x^4 + 7x^2 + 12 = 0$$

$$14) \ x^4 + x^2 - 72 = 0$$

$$15) \ x^4 + 8x = 0$$

$$16) \ x^4 - 27x = 0$$

$$17) \ -125x^4 + 64x = 0$$

$$18) \ 27x^4 - 8x = 0$$

Saint Joseph Convent School - English Program

Semester 1 | SY 2025-2026

G10 Advanced Math Quiz

Name: \_\_\_\_\_ Nickname: \_\_\_\_\_ G10/\_\_\_\_ Date: \_\_\_\_\_ Score: \_\_\_\_\_

**Name each polynomial by degree and number of terms.**

1)  $-7k^3$

2)  $-6n^4 + 2n^3$

3)  $-2m^4$

4) 7

**Find each product.**

5)  $(3x - 4)(3x + 1)$

6)  $(3a + 2)(4a + 1)$

7)  $(4r^2 + 4r + 8)(8r^2 + r + 2)$

8)  $(-8m - 7n)(-8m + 7n)$

**Factor each completely.**

9)  $x^2 - 7x + 12 = 0$

10)  $x^2 - 4x + 3 = 0$

$$11) \ x^3 - 2x^2 + x - 2 = 0$$

$$12) \ x^3 + 3x^2 + 4x + 12 = 0$$

$$13) \ x^4 - 2x^2 + 1 = 0$$

$$14) \ x^4 + 8x^2 - 9 = 0$$

$$15) \ x^4 + 8x = 0$$

$$16) \ x^4 + x = 0$$

$$17) \ 125x^4 - 64x = 0$$

$$18) \ 125x^4 - 8x = 0$$

Saint Joseph Convent School - English Program

Semester 1 | SY 2025-2026

G10 Advanced Math Quiz

Name: \_\_\_\_\_ Nickname: \_\_\_\_\_ G10/\_\_\_\_ Date: \_\_\_\_\_ Score: \_\_\_\_\_

**Name each polynomial by degree and number of terms.**

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

2)  $r^2 + 10r - 4r^3$

3)  $9b^7$

4)  $-2 - k^3 + 4k - 3k^2$

**Find each product.**

5)  $(7x + 3)(6x - 4)$

6)  $(7k + 3)(3k - 8)$

7)  $(-7x^2 + 3x - 7)(-4x^2 - 3x - 5)$

8)  $(-7m + 5n)^2$

**Factor each completely.**

9)  $x^2 + x - 6 = 0$

10)  $x^2 - 5x + 4 = 0$

$$11) \ x^3 - 4x^2 - 2x + 8 = 0$$

$$12) \ x^3 + 2x^2 - 4x - 8 = 0$$

$$13) \ x^4 - 8x^2 - 9 = 0$$

$$14) \ x^4 - 10x^2 + 24 = 0$$

$$15) \ x^4 + 125x = 0$$

$$16) \ x^4 - 64x = 0$$

$$17) \ -8x^4 + 125x = 0$$

$$18) \ 64x^4 - 125x = 0$$

Saint Joseph Convent School - English Program

Semester 1 | SY 2025-2026

G10 Advanced Math Quiz

Name: \_\_\_\_\_ Nickname: \_\_\_\_\_ G10/\_\_\_\_ Date: \_\_\_\_\_ Score: \_\_\_\_\_

**Name each polynomial by degree and number of terms.**

1)  $v^2$

2)  $6b^3 + 2b + 8 + 3b^4$

3)  $-9x^2$

4)  $-3x^2 - 7x^3 + x$

**Find each product.**

5)  $(2p - 3)(5p + 7)$

6)  $(8p - 4)(6p - 8)$

7)  $(6x^2 + x - 7)(-8x^2 - 4x - 3)$

8)  $(-3v - 10u)^2$

**Factor each completely.**

9)  $x^2 - x - 20 = 0$

10)  $x^2 - 2x - 8 = 0$

$$11) \ x^3 - x^2 - 4x + 4 = 0$$

$$12) \ x^3 - 2x^2 + 4x - 8 = 0$$

$$13) \ x^4 - 7x^2 - 8 = 0$$

$$14) \ x^4 - 4 = 0$$

$$15) \ x^4 + 125x = 0$$

$$16) \ x^4 - 64x = 0$$

$$17) \ -8x^4 + 125x = 0$$

$$18) \ 64x^4 + 125x = 0$$

Saint Joseph Convent School - English Program

Semester 1 | SY 2025-2026

G10 Advanced Math Quiz

Name: \_\_\_\_\_ Nickname: \_\_\_\_\_ G10/\_\_\_\_ Date: \_\_\_\_\_ Score: \_\_\_\_\_

**Name each polynomial by degree and number of terms.**

1)  $5p^2$

2)  $-3$

3)  $-8 + 6v^2$

4)  $-7n^7 + 10n^2 + 7n^6$

**Find each product.**

5)  $(8b + 5)(b - 1)$

6)  $(8n - 1)(3n - 3)$

7)  $(-5x^2 - 6x + 4)(-8x^2 + 6x + 6)$

8)  $(-6x + 3y)(-6x - 3y)$

**Factor each completely.**

9)  $x^2 - 6x + 5 = 0$

10)  $x^3 - 16x = 0$

$$11) \ x^3 + x^2 - 4x - 4 = 0$$

$$12) \ x^3 - 2x^2 + x - 2 = 0$$

$$13) \ x^4 + 4x^2 - 5 = 0$$

$$14) \ x^4 + 4x^2 - 12 = 0$$

$$15) \ x^4 - 27x = 0$$

$$16) \ x^4 - 8x = 0$$

$$17) \ 27x^4 + 64x = 0$$

$$18) \ 125x^4 + 27x = 0$$

Saint Joseph Convent School - English Program

Semester 1 | SY 2025-2026

G10 Advanced Math Quiz

Name: \_\_\_\_\_ Nickname: \_\_\_\_\_ G10/\_\_\_\_ Date: \_\_\_\_\_ Score: \_\_\_\_\_

**Name each polynomial by degree and number of terms.**

1)  $5v^7$

2)  $-m^4$

3)  $8b^3 + 4b^2 + 7b^6 - 10b^5 + 4 - 6b$

4)  $-7$

**Find each product.**

5)  $(8n + 3)(n - 7)$

6)  $(8a + 4)(5a + 7)$

7)  $(-6v^2 - v + 2)(4v^2 + 7v + 5)$

8)  $(-y^2 - 4x)(-y^2 + 4x)$

**Factor each completely.**

9)  $x^2 + 6x + 8 = 0$

10)  $x^2 - x - 12 = 0$

$$11) \ x^3 + 3x^2 + 5x + 15 = 0$$

$$12) \ x^3 - x^2 - 2x + 2 = 0$$

$$13) \ x^4 + 7x^2 + 6 = 0$$

$$14) \ x^4 - 3x^2 - 10 = 0$$

$$15) \ x^4 + 8x = 0$$

$$16) \ x^4 + 125x = 0$$

$$17) \ 8x^4 - 27x = 0$$

$$18) \ 125x^4 - 64x = 0$$