

# Daffynition Decoder

1. Romantic: 11 13 8 12 11 1 8 11 13 8 13 10 3 5 12
2. American: 11 2 11 9 9 6 5 7 13 12 11 8 13 3 4

For each exercise below, subtract the second polynomial from the first. Find your answer in the answer column and notice the letter next to it. Each time the exercise number appears in the code, write this letter above it. Keep working and you will decode the “de-fun-itions.”

- ①  $(7x + 4) - (2x + 9)$
- ②  $(3x + 12) - (5x - 6)$
- ③  $(-4x^2 + 10) - (6x^2 - 9)$
- ④  $(2x^2 + 3x + 8) - (x^2 + 5x - 1)$
- ⑤  $(-x^2 + 9x - 2) - (9x^2 - 4x + 4)$
- ⑥  $(3x^2 + 7x + 1) - (8 + 5x + x^2)$
- ⑦  $(4x^3 + 6x^2 - 8x) - (x^3 - 2x^2 + 12x)$
- ⑧  $(x^3 + 2x^2 + 5x) - (3x^2 - x - 7)$
- ⑨  $(x^4 + 8x^2 - 1) - (x^2 - 3x^3 + x^4)$
- ⑩  $(5x^4 - 2x^2) - (3x - 2x^2 - 4x^3 + 6x^4)$
- ⑪  $(3x^2 + 7xy - 2y^2) - (x^2 - 6xy + 2y^2)$
- ⑫  $(-x^2 - 9xy + 5y^2) - (4x^2 - 2xy - y^2)$
- ⑬  $(4x^2y - 3xy^2) - (3x^2y - 8xy^2)$



Answers:

- ① M  $-x^4 + 4x^3 - 7x^2$
- ② S  $-x^4 + 4x^3 - 3x$
- ③ U  $3x^3 + 5x^2 + 7$
- ④ L  $5x - 5$
- ⑤ E  $-10x^2 + 19$
- ⑥ F  $2x^2 + 2x - 19$
- ⑦ C  $-10x^2 + 13x - 6$
- ⑧ H  $-2x + 18$
- ⑨ T  $-5x^2 - 7xy + 6y^2$
- ⑩ O  $3x^3 + 8x^2 - 20x$
- ⑪ P  $3x^3 + 7x^2 - 1$
- ⑫ R  $x^2 - 2x + 9$
- ⑬ A  $2x^2 + 13xy - 4y^2$
- ⑭ N  $x^2y + 5xy^2$
- ⑮ Y  $2x^2 + 2x - 7$
- ⑯ B  $-5x^2 - 6xy + 7y^2$
- ⑰ I  $x^3 - x^2 + 6x + 7$