03A Practice: Multiplication and Division of Polynomials

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

9. $(5x - 2)(3x^2 - 2x - 1)$	**10.** $\dfrac{10x^5 - 20x^4 + 15x^3}{5x^3}$
11. $\dfrac{12x^5 + 4x^2}{4x^2}$	**12.** $\dfrac{15x^5 + 12x^2 - 3x}{-3x}$
13. $\dfrac{14x^5 - 21x^3 + 7x^2}{-7x^2}$	**14.** $(5x + 7)(5x - 7)$

Answers:

1. $10x^2 + 15x$
2. $24x^5 - 12x^4 + 8x^2$
3. $-12x^5 + 6x^4 - 21x^3$
4. $-20x^5 + 15x^4 + 35x^3 - 10x^2$
5. $20x^2 + 37x + 15$
6. $14x^2 - 41x + 15$
7. $48x^2 - 6x - 15$
8. $12x^3 + 2x^2 + 11x + 10$
9. $15x^3 - 16x^2 - x + 2$
10. $2x^2 - 4x + 3$
11. $3x^3 + 1$
12. $-5x^4 - 4x + 1$
13. $-2x^3 + 3x - 1$
14. $25x^2 - 49$