

Math 009
Online practice test 2

1. Solve: $4x - 7 = 7x$
2. Solve: $9 - 4(2 - 4x) = 6x + 3$
3. Solve: $\frac{3}{5}x + \frac{3}{4} = \frac{1}{10}x - \frac{5}{8}$
4. Simplify: (a) $x^4 \cdot x^6$ (b) $(x^4)^3$ (c) $x^9 \div x^5$ (d) 4^0
5. Add: $(4x^3 + 7x^2 - 6x + 9) + (5x^4 - 3x^2 + 7x + 12)$
6. Subtract: $(5x^4 + 7x^3 - 6x^2 + 11x - 9) - (5x^4 - 6x^3 + 7x^2 - 12x + 5)$
7. Multiply: $(4x^2 - 3x + 7)(2x + 5)$
8. Multiply: $(3x + 2)(2x - 5)$
9. Multiply: $(x + 4)(x + 7)$
10. Multiply: $(x + 4)(x - 4)$
11. Multiply: $(x + 4)^2$
12. Factor by grouping: $7x^2 + 14x + 10x + 20$
13. Factor by finding a common factor: $3x^3 + 9x^2 - 30x$
14. Factor: $x^2 + 5x - 24$
15. Factor: $x^2 - 3x - 28$
16. Factor: $x^2 - 9$
17. Factor: $6x^2 + 11x + 3$
18. Factor: $8x^2 + 10x + 3$
19. Factor: $5x^3 - 20x^2$