

Homework – Simplifying and factoring expressions

Simplify:

1. $(1 + 2)(3 + 4)(5 + 6)$
2. $(1 + 2)((3 + 4) - (5 + 6))$
3. $(1 + 2)x - ((3 + 4)x + (5 + 6))x$
4. $(x(x + 1))^2$
5. $(x + y)(1 + 4 + x)$
6. $(x + y)(2x - xy)$
7. $(A + (12 + A))(A - (12 + A))$

Factor:

8. $16 - 9a^4$
9. $6x^2 - x^4 - x^3$
10. $x^4 - y^4$
11. $p^2 - 2pq + q^2 - r^2$
12. $x^3 - 6x^2 + 11x - 6$