Adding, Subtracting, and Multiplying Radical Expressions - Key

In problems 1-2, add or subtract as indicated. Assume all variables are greater than or equal to zero.

1. $12\sqrt{3}$	2. $6\sqrt{x}$

In problems 3-8, add or subtract as indicated. Assume all variables are greater than or equal to zero.

3. $6\sqrt{2}$	4. $7\sqrt[3]{3}$
5. $28\sqrt{6}$	6. $-27x\sqrt{2}$
7. $7\sqrt{x-2}$	8. $$2x^3\sqrt[5]{x^3} - \sqrt[5]{x^3}$$ *or* $$(2x^3-1)\sqrt[5]{x^3}$$

In problems 9-16, multiply and simplify. Assume all variables are greater than or equal to zero.

9. $\sqrt{10}-\sqrt{6}$	10. $x\sqrt{15}-2x\sqrt{3}$
11. $4-4\sqrt{5}+\sqrt{3}-\sqrt{15}$	12. $\sqrt{42}-2\sqrt{35}+3\sqrt{30}-30$
13. $4+4\sqrt{x}+x$	14. $x+2\sqrt{3x}+3$
15. $x-3$	16. $\sqrt[3]{x^2}-4\sqrt[3]{x}-12$