Rationalizing Radical Expressions

In problems 1-12, rationalize each denominator. Assume all variables are positive.

1. $\dfrac{3}{\sqrt{5}}$	2. $\dfrac{7}{2\sqrt{2}}$
3. $\dfrac{5}{\sqrt{24}}$	4. $\dfrac{\sqrt{3}}{\sqrt{5}}$
5. $\sqrt{\dfrac{3}{x}}$	6. $\dfrac{\sqrt{x^5}}{\sqrt{y^5}}$
7. $\dfrac{3}{\sqrt[5]{3}}$	8. $\sqrt[7]{\dfrac{2}{x}}$
9. $\sqrt[3]{\dfrac{-1}{24}}$	10. $\dfrac{3}{\sqrt[5]{16x^2}}$
11. $\dfrac{-2}{\sqrt[4]{9xy^2}}$	12. $\dfrac{1}{\sqrt[7]{x^2 y^4}}$

In problems 13-18, rationalize each denominator. Assume all variables are positive.

13. $\dfrac{5}{\sqrt{2}-1}$	14. $\dfrac{7}{6+\sqrt{3}}$
15. $\dfrac{10}{\sqrt{20}-\sqrt{10}}$	16. $\dfrac{\sqrt{5}}{\sqrt{3}-\sqrt{2}}$
17. $\dfrac{\sqrt{x^3}}{\sqrt{x}-\sqrt{y}}$	18. $\dfrac{16}{3\sqrt{2}+5\sqrt{7}}$