

**Factoring Practice WS**

In PreCalculus, there is a considerable amount of factoring, BUT we will have to factor expressions that look like these:

a.  $\cos^2 x - \sin^2 x \cdot \cos^2 x$  ... *greatest common factor*

b.  $\sec^4 x - \tan^4 x$  ... *a difference of two squares*

c.  $2\cos^2 x - 9\cos x - 5$  ... *a “quadratic-style” trinomial expression*

So, let's practice basic factoring first!

Factor the following completely.

1. $5x^2 - x$	2. $7y^3 + 14y^2$
3. $9x^3y^2 - 6x^2y^3 + 3x^3y^3$	4. $x^2 - 16$
5. $a^2 - 81b^2$	6. $6x^4 - 6y^4$
7. $w^2 - 14w + 45$	8. $x^2 + 2x - 24$
9. $r^4 + 12r^2 + 20$	10. $k^2 - k - 20$
11. $2x^2 + 5x + 3$	12. $5x^2 - 17x + 6$
13. $2x^2 - 9x - 5$	14. $x^3 + x^2 + x + 1$
15. $x^3 + 2x^2 - x - 2$	16. $3x^2 - 5x - 2$
17. $x^3y + 2x^2y$	18. $x^4 + x^2 - 42$