

MATH 156: Precalculus
Fall 2015
Worksheet §1.3: Factoring

1. Perform the indicated operations and simplify.

(a) $(3x - 5)(3x + 5)$ (Ask yourself if you proceeded in the MOST EFFICIENT manner!)

(b) $(x^{1/2} + 3x^{1/2})(x^{1/2} - 3x^{1/2})$

(c) $y^{2/3}(y^{1/3} - y^{7/3})$

2. Factor the expression completely. (ALWAYS CHECK YOUR ANSWER! YOU WILL KNOW IF YOU ARE RIGHT OR NOT!)

(a) $25a^2 - 2b^2$

(b) $2x^2 - 5x - 12$

(c) $8s^3 - 125t^3$

(d) $x^5 + x^4 + x + 1$ (Hint at the bottom of the page if you want!)

(e) $(x^2 - 1)y^2 - (x^2 - 1)$

(f) $30a^3 + 15a^4$

HINT: Factor by grouping! Specifically, pull out a common factor from the first two terms.