

Name _____

Date _____

8A Period _____

Factoring Completely Classwork

Aim: *How can we factor a polynomial completely?*

Warm Up: Identify the type of factoring required to factor each problem; then, factor it.

Polynomial	Type of Factoring	Polynomial in factored form
(a) $4x^2 + 16x$		
(b) $4x^2 - 9$		
(c) $x^2 + 5x - 14$		

Guided Practice: Factoring, Completely

In Exercise 1-6, Factor Completely. You will be factoring more than once, per problem.

(1) $5x^2 - 125$	(2) $2x^2 + 8x - 10$
(3) $x^4 - 1$	(4) $2x^2 - 50$
(5) $4x^2 + 16x + 12$	(6) $xy^2 - x^3$

Problem Set:

(1) $4x^2 - 8x + 4$	(2) $x^4 - y^4$
(3) $81x^4 - x^8$	(4) $x^4 - 4x^2 + 3$
(5) $3x^3 - 6x^2 - 9x$	(6) $y^6 - y^2$
(7) $2x^3 - 24x^2 + 64x$	(8) $2x^3 - 34x^2 + 140x$
(9) $3x^3 - 33x^2 + 54x$	(10) *** Challenge*** $45x^2 - 168x - 3x^3$