

Examples: Factor using the GCF

$$6r^3 + 3r^2 - 7r$$

$$(1)(2)(3)(\underset{\uparrow}{r})(\underset{\uparrow}{r})(\underset{\uparrow}{r}) \quad (1)(3)(\underset{\uparrow}{r})(\underset{\uparrow}{r}) \quad (-1)(\underset{\uparrow}{7})(\underset{\uparrow}{r})$$

$$r(6r^2 + 3r - 7)$$

$$18b^3 - 36b^2 - 9$$

$$(1)(2)(3)(\underset{\uparrow}{3})(\underset{\uparrow}{b})(\underset{\uparrow}{b})(\underset{\uparrow}{b}) \quad (-1)(2)(2)(\underset{\uparrow}{3})(\underset{\uparrow}{3})(\underset{\uparrow}{b})(\underset{\uparrow}{b}) \quad (-1)(\underset{\uparrow}{3})(\underset{\uparrow}{3})$$

$$9(2b^3 - 4b^2 - 1)$$

$$xy - 2x^2y + xy^3$$

$$(1)(\underset{\uparrow}{x})(\underset{\uparrow}{y}) \quad (-1)(2)(\underset{\uparrow}{x})(\underset{\uparrow}{x})(\underset{\uparrow}{y}) \quad (\underset{\uparrow}{x})(\underset{\uparrow}{y})(\underset{\uparrow}{y})(\underset{\uparrow}{y})$$

$$xy(1 - 2x + y^2)$$

Write each as the product of two binomials.

Examples: $y(y+1) + 2(y+1)$
 $(y+2)(y+1)$

$$7x(x-1) + (x-1) = (7x+1)(x-1)$$

$$6(x-2) + y(x-2) = (6+y)(x-2)$$

$$3x(x+4) - 2(x+4) = (3x-2)(x+4)$$

Factor by grouping

Examples: $4ax - bx + 4ay - by$
 $(4ax - bx) + (4ay - by)$
 $x(4a - b) + y(4a - b)$
 $(x+y)(4a - b)$

$$2pg^2 + 4pg - 2g - 4$$

$$(2pg^2 + 4pg) + (-2g - 4)$$

$$2pg(g+2) - 2(g+2)$$

$$(2pg - 2)(g+2)$$

CW. Pg 450 + 451

Worksheet
online

14 - 28 Evens

44, 50, 56, 58

HW. Pg 450 + 451

13 - 57 odds