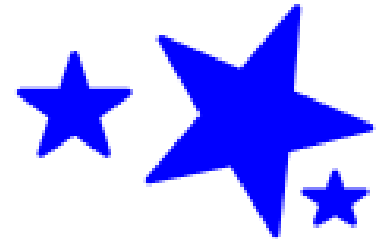


**9 - 2**

**Factoring Using the  
Distributive Property**

**Ex: Factor  $12a^2 + 6a$ .**

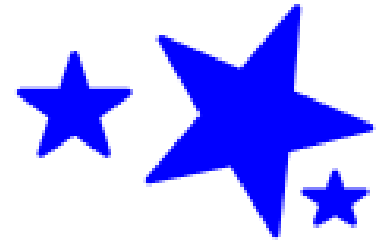


$$6a(2a + 1)$$

**Ex: Factor  $18cd^2 + 12c^2d + 9cd$ .**

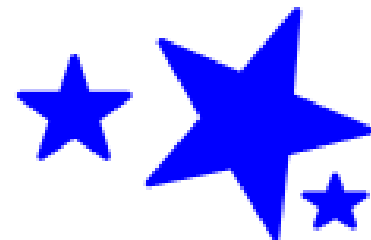
$$3cd(6d + 4c + 3)$$

Ex: Factor  $12xy + 24xy^2 - 30x^2y^4$ .



$$6xy(2 + 4y - 5xy^3)$$

## Factor by Grouping

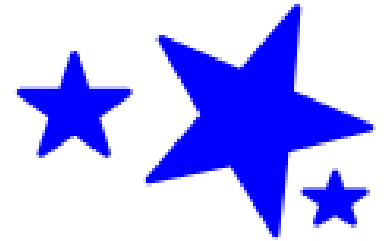


Ex: Factor  $(4ab + 8b)(3a + 6)$

$$4b(a+2) + 3(a+2)$$

$$(4b+3)(a+2)$$

Ex: Factor  $(2xy + 7x)(-2y - 7)$

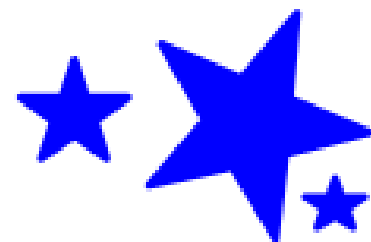


$$x(2y + 7) - 1(2y + 7)$$

$$\boxed{(x - 1)(2y + 7)}$$

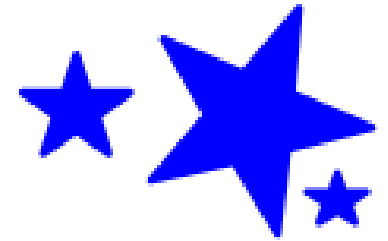
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**Ex: Factor  $35x - 5xy + 3y - 21$ .**



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**\*\*\*Special Note\*\*\***







Ex: Solve  $x^2 = 7x$ .

$-7x$     $-7x$

$$x^2 - 7x = 0$$

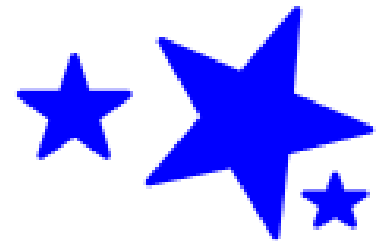
$$x(x - 7) = 0$$

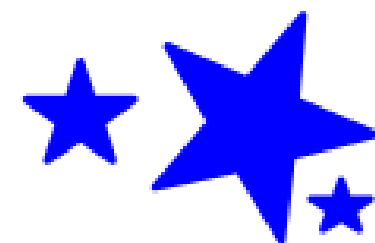
$$x = 0$$

$$x - 7 = 0$$

$+7$     $+7$

$$x = 7$$





Homework:

p. 484 # 22 - 32 even, 50, 54, 55