p. 50-51   Factoring DOTS   4.4

Factor completely: ① GCF   **p. 50**
                    ② ✗

1) $x^2 - 16x + 63$

$\overset{+}{-16}$

$-9x \quad\quad -7x$

63

×	-7
x^2	$-7x$
$-9x$	63

(× left column: x, -9)

$(x-9)(x-7)$

2) $2a^2 - 2a - 180$

$2(a^2 - a - 90)$

-1

$-10a \quad\quad 9a$

-90

	a	9
a	a^2	$9a$
-10	$-10a$	-90

$2(a-10)(a+9)$

⑥ $7k^2 + 9k$
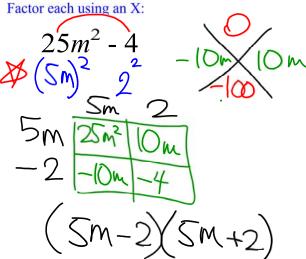
$k(7k+9)$

D.O.T.S. (Difference of 2 Squares)   p. 51

Can be written in the form $a^2 - b^2$

(1) A Binomial (Two Terms)

(2) Separated by a Subtraction symbol

(3) Both perfect squares

Is the following Differences of Two Squares?
Factor each using an X:

$$25m^2 - 4$$

$(5m)^2 \quad 2^2$

$-10m \times 10m$

-100

	$5m$	2
$5m$	$25m^2$	$10m$
-2	$-10m$	-4

$$(5m - 2)(5m + 2)$$

p. 51

Difference of Two squares can be factored using a formula.

$$a^2 - b^2 = (a + b)(a - b)$$

Factor the following: (HINT: BE SURE it's the
DIFFERENCE of 2 PERFECT SQUARES!)

1) $w^2 - 25$

$$(w + 5)(w - 5)$$

2) $x^8 - 100$

$$(x^4 + 10)(x^4 - 10)$$

Difference of Two squares can be factored using a formula.

$$a^2 - b^2 = (a + b)(a - b)$$

Factor the following: (HINT: BE SURE it's the DIFFERENCE of 2 PERFECT SQUARES!)

3) $16x^2 + 4$

$4(4x^2 + 1)$

4) $49x^4 - 9$

$(7x^2 + 3)(7x^2 - 3)$

Work problem out then you can get the homework:

$$36k^2 - 1$$