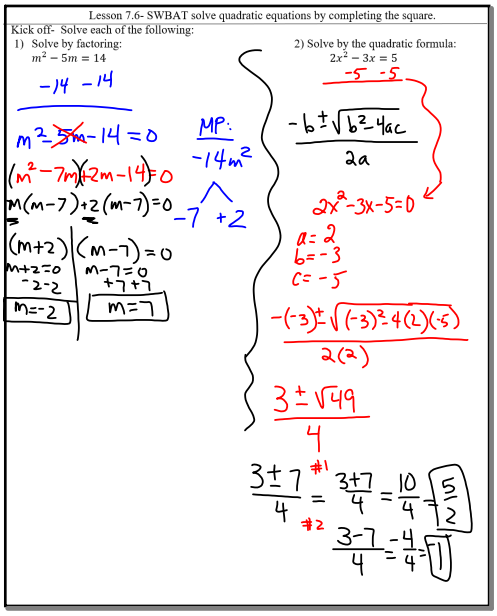
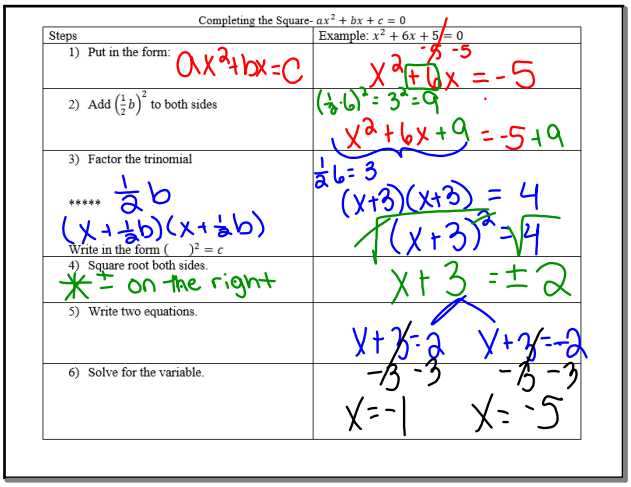
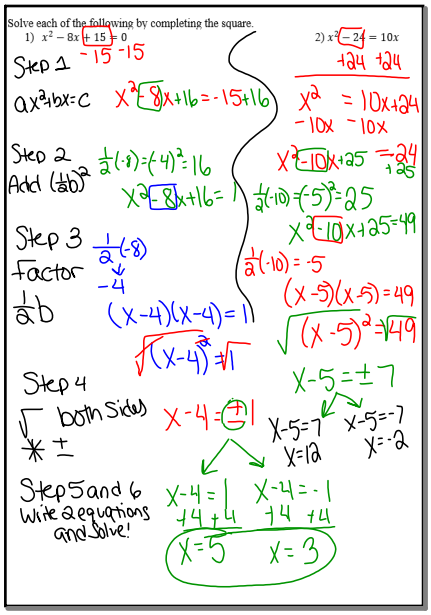
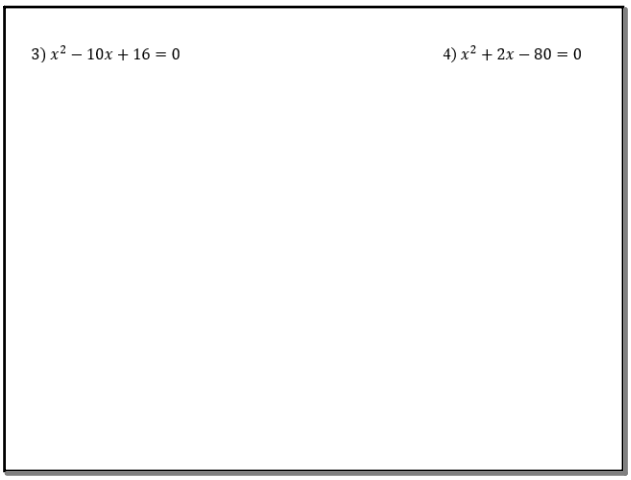

Lesson 7.6- SWBAT solve quadratic equations by completing the square.
Kick off- Solve each of the following:
1) Solve by factoring:
$m^2 - 5m = 14$
2) Solve by the quadratic formula:
$2x^2 - 3x = 5$
MP:
$-14m^2$
-7 $+2$
$a=2$
$b=-3$
$c=-5$
#1
#2


Completing the Square- $ax^2 + bx + c = 0$
Steps
Example: $x^2 + 6x + 5 = 0$
1) Put in the form: $ax^2+bx=c$
2) Add $\left(\frac{1}{2}b\right)^2$ to both sides
3) Factor the trinomial
***** $\frac{1}{2}b$
Write in the form $(\quad)^2 = c$
4) Square root both sides.
* $\pm$ on the right
5) Write two equations.
6) Solve for the variable.


Solve each of the following by completing the square.
1) $x^2 - 8x + 15 = 0$
2) $x^2 - 24 = 10x$
Step 1
$ax^2+bx=c$
Step 2
Add $(\frac{1}{2}b)^2$
Step 3
Factor
$\frac{1}{2}b$
Step 4
$\sqrt{}$ both sides
$*\pm$
Step 5 and 6
Write 2 equations and solve!


3) $x^2 - 10x + 16 = 0$
4) $x^2 + 2x - 80 = 0$