For each of problems 1 and 2, find the greatest common factor and factor it out.

1) $9AB + 15B$
The GCF is $3B$

$9AB + 15B = 3B(3A + 5)$

2) $13x^5 - 2x^3 + x^2$
The GCF is x^2

$13x^5 - 2x^3 + x^2 = x^2\left(13x^3 - 2x^2 + 1\right)$

3) (This is what the problem was meant to be: the polynomial that appeared on your quiz had a typo which made it unfactorable, and I am not counting it in your score.)
Factor the polynomial by grouping:
$6x^2 + 2xy + 3x + y$
$= 2x(3x + y) + 1(3x + y)$
$= (3x + y)(2x + 1)$

4) Factor the polynomial using the AC method as directed:
$y^2 - 6y + 5$
First split the middle term in the correct way:
$= y^2 - 5y - y + 5$ Then factor by grouping:
$= y(y - 5) - 1(y - 5)$
$= (y - 5)(y - 1)$

Another way:
$y^2 - 6y + 5$
First split the middle term in the correct way:
$= y^2 - y - 5y + 5$ Then factor by grouping:
$= y(y - 1) - 5(y - 1)$
$= (y - 1)(y - 5)$