(a)(v) $(7+5j)^2 - (3-7j) - (-2+6j)$

$= (49 + 35j + 35j + 25j^2) - 3 + 7j + 2 - 6j$

$= 49 + 70j + 25(-1) - 1 - j$

$= \underline{\underline{23 + 69j}}$

(b) $12x^2 + 5x = -13$

$12x^2 + 5x + 13 = 0$

$a = 12, \quad b = 5, \quad c = 13$

$$x = \frac{-5 \pm \sqrt{(5)^2 - 4(12)(13)}}{2(12)}$$

$$x = \frac{-5 \pm \sqrt{-599}}{24}$$

~~$x = \frac{-5}{24} + \sqrt{-599}$~~

$$x = \frac{-5 \pm \sqrt{599}\sqrt{-1}}{24}$$

$$x = \frac{-5 \pm 24.47j}{24}$$