

8A RH

HW #

$$1) (4x^3 + x + 7) + (2x^2 + 3x + 1)$$

$$6x^2 + 4x + 8$$

$$7) \begin{array}{l} \text{a)} \\ \text{Janie } x^3 \\ \text{Max } x^7 \end{array}$$

$$2) (3x^3 - x^2 + 8) - (x^3 + 5x^2 + 4x - 7)$$

$$3x^3 - x^2 + 8 - x^3 - 5x^2 - 4x + 7$$

$$2x^3 - 6x^2 - 4x + 15$$

$$\begin{array}{l} \text{b)} x^7 + x^3 \\ \text{c)} \text{degree} = 7 \\ x^7 - x^3 \\ \text{degree} = 7 \end{array}$$

$$3) (3x^3 + 8x) - 2(x^3 + 12)$$

$$3x^3 + 8x - 2x^3 - 24$$

$$x^3 + 8x - 24$$

$$4) (5 - t - t^2) + (9t + t^2)$$

$$8t + 5$$

$$5) (3p+1) + 6(p-8) - (p+2)$$

$$3p+1 + 6p - 48 - p - 2$$

$$8p - 49$$

| Yes, she is  
| correct. They  
| are all binomials

$$6) \text{ii. } 5x^3 \cdot 2x^2 - 10x^4 + 3x^5 + 3x \cdot (-2)x^4$$

$$10x^5 - 10x^4 + 3x^5 - 6x^5 \rightarrow 7x^5 - 10x^4$$

$$\text{iii. } (t+2)^2 - 4t$$

$$(t+2)(t+2) - 4t$$

$$t^2 + 2t + 2t + 4 - 4t \rightarrow t^2 + 4$$

$$\text{iv. } 5(a-1) - 10(a-1) + 100(a-1)$$

$$5a - 5 - 10a + 10 + 100a - 100 \rightarrow 95a - 95$$

$$\text{v. } (2\pi r - \pi r^2)r - (2\pi r - \pi r^2)2r$$

$$2\pi r^2 - \pi r^3 - 4\pi r^2 + 2\pi r^3 \rightarrow \pi r^3 - 2\pi r^2$$