

1. (1) $A+B=(2x^3+3x^2+1)+(2x^2-x+1)$
 $=2x^3+5x^2-x+2$

(2) $2A-3B=2(2x^3+3x^2+1)-3(2x^2-x+1)$
 $=4x^3+6x^2+2-6x^2+3x-3$
 $=4x^3+3x-1$

(各2点)

2. (1) $x^2 \times x^5 = x^7$

(2) $(x^2)^4 = x^8$

(3) $(xy^3)^4 = x^4y^{12}$

(4) $(x^3y^2)^2 = x^6y^4$

(5) $(-x^2)^3 = (-1)^3 \times (x^2)^3 = -x^6$

(6) $(-2x^3)^5 = (-2)^5 \times (x^3)^5 = -32x^{15}$

(各2点)

3. (1) $(-2xy)^3 \times (3xy)^2 = -8x^3y^3 \times 9x^2y^2$
 $= -72x^5y^5$

(2) $16xy^3 \times \left(\frac{1}{2}x^2y\right)^3 = 16xy^3 \times \frac{1}{8}x^6y^3$
 $= 2x^7y^6$

(各2点)