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$$1) (i) x^4 \times x^6 \times x = x^{11}$$
$$4 + 6 = 10$$
$$x=1 \quad 10 + 1 = 11$$

$$(ii) 2x^2 \times 3x^3 \times 2x$$

~~2x^2 \times 3x^3 \times 2x~~

$$2 \times 2 = 2^{1+1}$$
$$= x^2 \times 3x^3 \times 2^2x$$

$$x^2 \times x^3 \times x = x^{2+3+1}$$
$$= 3 \times 2^2 \times x^{2+3+1}$$

$$2 + 3 + 1 = 6$$
$$= 3 \times 2^2 \times x^6$$

$$2^2 = 4 \quad x = 4x^6$$
$$3 \times 4 = 12$$

$$x = 12x^6$$

$$(iii) \frac{x^4 \times x^3 \times x^2}{x^9} = 1$$

$$4 + 3 + 2 = 9 = x^9 \div x^9 = 1$$

$$(iv) (3x^3)^3$$

$$3^3 = 27$$