

calvin campbell 2001090

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1)

$$\text{i) } x^4 \times x^6 \times x \\ = x^{11}$$

$$\text{iv) } (3x^2)^3$$

$$3x^2 \times 3x^2 \times 3x^2 = 27x^6$$

$$\text{ii) } 2x^2 \times 3x^3 \times 2x \\ 6x^5 \times 2x \\ = 12x^6$$

$$\text{v) } \sqrt{x} \times \sqrt{x} \\ x^{\frac{1}{2}} \times x^{\frac{1}{2}} = x^1$$

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

2)

$$\text{i) } 15x + 10x + 21 = 0$$

$$15x - 2 = 12x + 9$$

$$15x - 12x - 2 = 9$$

$$3x - 2 = 9$$

$$3x = 11$$

$$3x = 9 + 2$$

$$3x = 11$$

$$x = \frac{11}{3}$$

$$x = 3.6$$

$$\text{ii) } 3(2x - 1) = 6(x + 3)$$

$$21x - 3 = 6x + 18$$

$$21x - 6x - 3 = 18$$

$$15x - 3 = 18$$

$$15x = 18 + 3$$

$$15x = 21$$

$$x = \frac{21}{15}$$

$$x = 1.4$$