

03/11/2020

1.

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

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

$2 \times 3 \times 2 = 12$

$12x^2 \times x^3 \times x \rightarrow 12x^5 \times x = 12x^6$

(iii) $\frac{x^4 \times x^3 \times x^2}{x^9} \quad 4 \times 3 \times 2 = 24 \rightarrow x^{24}$

$\frac{x^{24}}{x^9} = x^{15}$

(iv) $(3x^2)^3 \rightarrow 3^3 \times (x^2)^3$
 $3^3 = 27 \quad (x^2)^3 = 27x^6$

(v) $\sqrt{x} \times \sqrt{x} = x \times x$
 $= x^2$

2.

(i) $15x - 2 = 12x + 9$

↓

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

↓

$3x = 9 + 2 \rightarrow 3x = 11 \Rightarrow x = \frac{11}{3}$

(ii) $3(7x - 1) = 6(x + 3)$

↓

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

$21x - 6x = 18 + 3$

$15x = 18 + 3 \Rightarrow 15x = 21$

$x = \frac{7}{5}$

~~$(iii) 5x + 3 = 2x + 9$~~