

MAGDY BKHEET

NO-2007446

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(1) $x^4 \times x^6 \times x$ $\therefore 4+6+1$
 $4+6+1$
 $10x+1 = 11$

(2) $2x^2 \times 3x^3 \times 2x$
 $2x^5 \times 3 \times 2x$
 $2x^6 \times 3 \times 2$
 $6x^6 \times 2 = 12x^6$

(3) $\frac{x^4 \times x^3 \times x^2}{9}$ $\frac{x^4 + x^3 + x^2}{9}$
 $\frac{7x^2}{9}$
 $\therefore x = \frac{9}{7}$

(4) $(3x^2)^3$
 $3(x^2)^3 \times 27(x^2)^3$
 $27x^2 \times 3 \times 27x^6$

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

Linear equations

(1) $15x - 2 = 12x + 9$
 $15 - 12x = 9 + 2$
 $\therefore 3x = 11$
 $\therefore x = \frac{11}{3}$

(2) $3(7x - 1) = 6(x + 3)$
 $21x - 3 = 6(x + 3)$
 $21x - 3 = 6x + 18$
 $21x - 3 - 6x = 18$
 $15x - 3 = 18$
 $15x = 18 + 3$
 $15 = 21$
 $x = \frac{21}{15}$
 $x = \frac{7}{5}$

(3) $\frac{5x+3}{4} = \frac{2x-1}{9}$
 $9(5x+3) = 4(2x-1)$
 ~~$45x+27 = 8x-4$~~
 $45x+27 = 8x-4$
 $45x+27-8x = -4$
 $37x+27 = -4$
 $37x = -4-27$
 $37x = -31$
 $x = \frac{-31}{37}$
 $\therefore x = -0.837$