

TUTORIAL SHEET - (5)

Question ① - Write the following terms without a negative index
 eg: $3x^{-4} = \frac{3}{x^4}$

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|-------------|---------------|-------------------------|------------------------|
| 1) x^{-5} | (b) $5a^{-2}$ | (c) $\frac{4p^{-3}}{5}$ | (d) $\frac{m^{-4}}{6}$ |
|-------------|---------------|-------------------------|------------------------|

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|--------------|-----------------|---------------------------------|------------------------------|
| 2) ab^{-3} | (f) $(2x)^{-3}$ | (g) $\frac{5a^{-4}b^3}{b^{-2}}$ | (h) $\frac{3m^{-6}}{n^{-4}}$ |
|--------------|-----------------|---------------------------------|------------------------------|

Question ② Write the following in the form kx^n (USE negative indices)
 eg: $\frac{1}{3x^4} = \frac{1}{3}x^{-4}$ | eg 2 $a\sqrt{x} = ax^{\frac{1}{2}}$ (USE fractional ")

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|-----------------|-----------------|----------------------|-----------------------------|-----------------------------|
| $\frac{5}{x^2}$ | (b) $x\sqrt{x}$ | (c) $\frac{1}{3x^6}$ | (d) $\frac{1}{\sqrt[3]{x}}$ | (e) $\frac{\sqrt{x}}{5x^4}$ |
|-----------------|-----------------|----------------------|-----------------------------|-----------------------------|

Question ③ - Evaluate:

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|-------------|------------------------|---------------------------|------------------------------------|------------------------------------|
| 1) 5^{-2} | (b) $9^{-\frac{1}{2}}$ | (c) $(\frac{3}{10})^{-3}$ | (d) $(\frac{9}{16})^{\frac{1}{2}}$ | (e) $(\frac{4}{9})^{-\frac{3}{2}}$ |
|-------------|------------------------|---------------------------|------------------------------------|------------------------------------|

a) $\frac{1}{x^5}$ b) $\frac{5}{a^2}$ c) $\frac{4}{5p^3}$ d) $\frac{1}{6m^4}$ e) $\frac{a}{b^3}$ f) $\frac{1}{8x^3}$ g) $\frac{5b^5}{a^4}$ h) $\frac{3n^4}{m^6}$
 i) $5x^{-2}$ j) $x^{3/2}$ k) $\frac{1}{3}x^{-6}$ l) $x^{-\frac{1}{3}}$ m) $\frac{1}{5}x^{-\frac{1}{2}}$ **③** n) $\frac{1}{25}$ o) $\frac{1}{3}$ p) $\frac{1000}{27}$
 q) $\frac{3}{11}$ r) $27m$