

(i) If $\log_{10} 2 = 0.3010$ find the value of $\log_{10} 8$

$\log_{10} 64 = 1.8062$, find $\log_{10} 0.064$

(ii) $\log_{10} 3.05 = 0.4843$ $\log_{10} P = 12.4843$, write in Scientific form the number represented by P .

(iii) If $\log_{10} 18 = a$ $\log_{10} 50 = b$ $\log_{10} 3 = c$, find the value of $a+b-2c$ without using logarithm tables.

(iv) If $v = 0.809$ and $t = 2.116$ in the formula,
 $A = \frac{35\sqrt{v}}{t^2}$, find the value of A using

logarithm tables.

(v) If $\log_{10} 3 = 0.4771$ and $\log_{10} 5 = 0.6990$, find the value of $\log_{10} 15$

(vi) If $\log_5 6 = x$, find $\log_5 30$

(vii) $A = (0.6175)^3$ and $B = \frac{2}{0.825}$.

Using table of logarithms, find the value of A & B .

Hence find the value of $A+B$.

(viii) If $\log_{10} 5 = 0.699$ and $\log_{10} 3 = 0.477$, show that $\log_{10} 8\frac{1}{3} = 0.921$

(ix) Find the value of $\left(\frac{8}{27}\right)^{-\frac{2}{3}} \times \frac{1}{2^2}$

Q(k) Solve $2^{x-1} = 16$

(x) Simplify $(3x^{-2})^2$ and give your answer with positive indices.

(xi) If $\log_3 4 = x$ find $\log_3 12$

(xii) Find the value of $\log_{10} \frac{4}{3} + \log_{10} 75$

without using logarithmic tables.

(xiii) Solve. $2^x \times 8^x = 4$

(xiv) Find the value without using logarithmic tables.

$$2 \log_{10} 5 + \log_{10} 160 - \frac{1}{3} \log_{10} 64$$

(v) Solve : $2^x \times 8^x = 4^2$

(vi) Simplify.

a) $32^{-\frac{2}{5}} \div 125^{\frac{2}{3}}$

b) $\frac{1}{2} \log_{10} 9 + 2 \log_{10} 6 - 3 \log_{10} 3 + 2 \log_{10} 5$

(vii) If $2 \log_a x + 4 \log_a 2 = 2 \log_a 5 - 2 \log_a 3$,
show that $x = \frac{5}{12}$