

~~6th~~
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ASSIGNMENT
BMA 1106 FOUNDATION MATHS

1. Solve for x in the equation

$$4^{(2x+2)} \div 2^{(x-3)} = \frac{1}{32^{(x+1)}} \quad (4\text{mks})$$

2. The fourth, sixth and tenth terms of a arithmetic progression are in Geometric progression if the seventh term of the AP is 10 find

i) Common ratio and of first term of the G.P. (6mks)

ii) The sum of the 1st 9 terms of the GP (3mks)

3. Find the simplest form of $\frac{2 \times (3^{n+1}) + 7(3^{n-1})}{3^{n+1} - 2(1/3)^{(1-n)}}$ (3mks)

4. Expand $(2+2/3)^4$ leaving the answer the simplified form (3mks)

5. Find x in the equation

$$\text{Log}_5(x-4) + \log_5 8 = \log_5 16 - 2 \quad (x-4) \quad (4\text{mks})$$

6. Find the value of x in which the matrix k

- (a) Has no inverse

$$k = \begin{pmatrix} 3x^2 & (x+2) \\ x+4 & 2 \end{pmatrix}$$

7. Find the first five terms of the binomial expansion

(a) $\sqrt[5]{1-3x}$ in ascending powers of x. hence find the value of $\sqrt[5]{0.4}$ correct to 3 decimal places (6mks)