

Nustrive by Nowsberman

For lectures/Tests/FLPs - contact 03369374191

Miscellaneous Topics

- 1) C
- 2) C
- 3) B
- 4) $\log_{10} 100 \Rightarrow 1$ Base negative
- 5) B
- 6) C
- 7) A
- 8) A $\rightarrow$ Base > 0
- 9) $\log_4 4 - \log_4 20 \Rightarrow 3 - m$
- 10) C
- 11) $\log \left(\frac{\frac{4}{7} \times \frac{33}{17}}{\frac{22}{21}} \right)$, Solve
- 12) $\log_3 (\log_5 125) \Rightarrow \log_3 (3) \Rightarrow 1$
- 13) Back Solve
- 14) Back Solve
- 15) $\log_2 (\log_3 7) \Rightarrow 3 \rightarrow \log_3 7 = 2 \Rightarrow 7 = 3^2 \Rightarrow 3^9$
- 16) C
- 17) A
- 18) A
- 19) $\log_a b \cdot \log_b c \cdot \log_c d \dots \log_m n \Rightarrow \log_a n$
 $\Rightarrow \log_3 9 = 2$
- 20) B
- 21) A
- 22) A
- 23) A
- 24) B $\Rightarrow \log_3 \frac{30}{10} \Rightarrow \log_3 3 \Rightarrow 1$
- 25) $b^2 - 4ac = 0$ $(m-1)^2 - 4(3)(5) = 0$
- 26) -1, -1, but write it once, B
- 27) A
- 28) $\frac{-k}{3} = 10$
- 29) Equation missing, Method 16
 $\alpha + \beta = 0$ if they are additive inverses
- 30) $\alpha + \beta = -\frac{b}{a}$
 $\alpha \beta = \frac{c}{a}$
 $\frac{1}{\alpha} + \frac{1}{\beta} \Rightarrow \frac{\alpha + \beta}{\alpha \beta}$ put values then $x^2 - 5x + 1$
 $\frac{1}{\alpha} \cdot \frac{1}{\beta} \Rightarrow \frac{1}{\alpha \beta}$

31) $x + \beta = \frac{-b}{a}$, $\alpha\beta = \frac{c}{a}$ - same method

$$\frac{1}{\alpha} + \frac{1}{\beta} \Rightarrow \frac{\alpha + \beta}{\alpha\beta} = \frac{-\frac{b}{a}}{\frac{c}{a}} \Rightarrow \frac{-b}{c}$$

$$\frac{1}{\alpha} \cdot \frac{1}{\beta} \Rightarrow \frac{1}{\alpha\beta} \Rightarrow \frac{a}{c}$$

$$x^2 - 5x + 4$$

$$x^2 - \left(\frac{-b}{c}\right)x + \frac{a}{c} = 0 \rightarrow \text{Multiply c b.s}$$

32) $4w^2 + 16w^4$

$$4w^2(1 + 4w^2)$$

33) $(-1)^1 \rightarrow (-1)^{5-1} \Rightarrow (-1)^4 \Rightarrow 1$

34) conjugate pairs so $2 - \sqrt{3}i$

35) $x + 1 = 0 \rightarrow x = -1$

put -1 in $x^2 - 3x + 1$

$$1 + 3 + 1 \Rightarrow 5 \checkmark$$

36) $x + 2 = 0 \rightarrow x = -2$

$$(-2)^3 - 2(-2) + k = 0 \text{ (if perfectly divided)}$$

find k

37) $\frac{1}{w^{27} \cdot w} + \frac{1}{w^{27} \cdot w^2} \Rightarrow \frac{1}{w} + \frac{1}{w^2} \Rightarrow \frac{w + w^2}{w^3} \Rightarrow -1$

38) multiply $x^2 - 1$ b.s

$$1 = A(x-1) + B(x+1)$$

put $x = 1$, find A

put $x = -1$, find B

39) - same method

40) B