

MID TERM PROGRESS REPORT

quantify digital education

Student Name

Jia bhasin

Teacher: *Manashi roy*

Month: *june*

TOPICS COVERED:

EXPONENTIAL & LOGARITHMIC EQUATIONS AND
FUNCTIONS

ASSESSMENT SCORE

15 out of 15 (100%)

HOMEWORK SUBMISSION

Homework submission on time

COMMENTS

Outstanding performance! She has demonstrated excellent understanding and dedication, achieving full marks in the assessment.

Keep up the exceptional work and continue striving for excellence in all future learning activities.



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Midterm

1) $3^{2x-1} = 3^4 \rightarrow 2x-1=4 \rightarrow 2x=5 \rightarrow \boxed{x=\frac{5}{2}}$

2) $5^{x+2} = 5^{3(x-0)} \rightarrow 5^{x+2} = 5^{3x-3} \rightarrow x+2=3x-3 \rightarrow 2x=5 \rightarrow \boxed{x=\frac{5}{2}}$

3) $\log_2(x^2-2x)=3 \rightarrow 2^3 = x^2-2x \rightarrow x^2-2x-8=0 \rightarrow (x-4)(x+2)=0$
 $\boxed{x=4, -2}$

4) $\log_3(81)=4 \rightarrow \log_3(2)=1 \rightarrow \log_3(9)=2 \cdot 2=4 \rightarrow$
 $4-1+4=\boxed{7}$

5) 2^x+1

a) $2^4+1 \rightarrow 16+1=17 \rightarrow f(4)=\boxed{17}$

b) $2^{-2}+1 \rightarrow \frac{1}{2^2}+1 \rightarrow \frac{1}{4}+1 \rightarrow f(-2)=\boxed{1.25}$

c) $2^0+1 \rightarrow 1+1=2 \rightarrow f(0)=\boxed{2}$