Learning Journal Unit 4

Department of Computer Science, UoPeople

MATH 1280-01 - AY2025-T3

Instructor Gideon Effiong

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1. Probability that ( P(X > 2) )

To find ( P(X > 2) ), we sum the probabilities of all values of ( X ) greater than 2. From the table, these values are ( X = 3 ) and ( X = 4 ).

P(X > 2) = P(X = 3) + P(X = 4)

Substituting the given probabilities:

P(X > 2) = 0.40 + 0.10 = 0.50

Answer:

P(X > 2) = 0.50

2. Probability that ( P(X = 4) )

From the table, the probability that ( X = 4 ) is directly given as:

P(X = 4) = 0.10

Answer:

P(X = 4) = 0.10

3. Probability that ( P(1 < X < 3) )

To find ( P(1 < X < 3) ), we sum the probabilities of all values of ( X ) strictly greater than 1 and strictly less than 3. From the table, the only value that satisfies this condition is ( X = 2 ).

P(1 < X < 3) = P(X = 2)

Substituting the given probability:

P(1 < X < 3) = 0.35

Answer:

P(1 < X < 3) = 0.35

Summary of Results

( P(X > 2) = 0.50 )

( P(X = 4) = 0.10 )

( P(1 < X < 3) = 0.35 )