38 Lecture - MTH101

Important Mcqs

The formula for work when the force applied is not constant is:

A) W = F(x)dx

B) W = F(x)dy

C) W = F(x)dt

D) W = F(x)ds

Answer: A) W = F(x)dx

The unit of work is:

A) Joule

B) Meter

C) Newton

D) Watt

Answer: A) Joule

How do you calculate the work done when the force applied is in the opposite direction of the displacement?

A) Positive

B) Negative

C) Zero

D) None of the above

Answer: B) Negative

The work done over a small interval of distance is calculated as:

A) dW = F(x)dy

B) dW = F(x)dt

C) dW = F(x)ds

D) dW = F(x)dx

Answer: D) dW = F(x)dx

How do you calculate the work done when the force applied is perpendicular to the displacement?

A) Positive

B) Negative

C) Zero

D) None of the above

Answer: C) Zero

What is the formula for work when lifting a weight to a certain height?

A) W = ?[a,b] F(x)dx

B) W = ?[a,b] F(h)dh

C) W = Fd

D) W = mg*h

Answer: B) W = ?[a,b] F(h)dh

What does the definite integral represent in the context of work?

A) Total force applied

B) Total distance covered

C) Total work done

D) Total displacement

Answer: C) Total work done

How do you find the total work done when the force applied is constant?

A) W = Fd

B) W = ?[a,b] F(h)dh

C) W = ?[a,b] F(x)dx

D) W = mg*h

Answer: A) W = F*d

How do you calculate the work done over a small interval of height?

A) dW = F(x)dx

B) dW = F(x)dy

C) dW = F(h)dh

D) dW = F(x)ds

Answer: C) dW = F(h)dh

What is the formula for work when the force applied is in the same direction as the displacement?

A) Positive

B) Negative

C) Zero

D) None of the above

Answer: A) Positive