Expression for torque at breadth in moving coil placed in magnetic field

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$$\tau = F \times b \sin \theta$$

Expression for force at length in moving coil place in magnetic field

$$F = BIl$$

Derivation for expression for torque in moving coil place in magnetic field

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$$\tau = F \times b \sin \theta$$

.

$$F = BIl$$

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$$\tau = BIl \times b\sin\theta$$

•

$$\tau = BIA\sin\theta$$

Expression for torque in moving coil placed in magnetic field

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$$\tau = BIA\sin\theta$$

Expression for torque in N number of coils in moving coil place in magnetic field

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$$\tau = BINA\sin\theta$$

Vector form of expression of torque in moving coil placed in magnetic field

$$\vec{\tau} = (\vec{B} \times \vec{A})I$$

Expression for torque in moving coil place in magnetic field in terms of angle made by the plane of coil with magnetic field

Condition for maximum torque in moving coil place in magnetic field

Zero degree angle by the plane of coil with magnetic field

Condition for minimum torque in moving coil placed in magnetic field

90 degree angle by the plane of coil with magnetic field