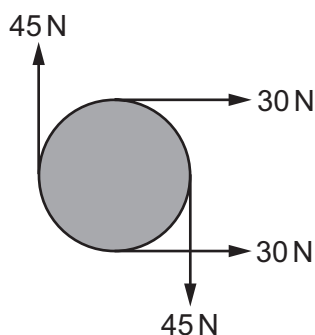10 Steel pellets, each with a mass of 0.60 g, fall vertically onto a horizontal plate at a rate of 100 pellets per minute. They strike the plate with a velocity of $5.0\,\mathrm{m\,s^{-1}}$ and rebound with a velocity of $4.0\,\mathrm{m\,s^{-1}}$.

What is the average force exerted on the plate by the pellets?

A   0.0010 N   B   0.0054 N   C   0.0090 N   D   0.54 N
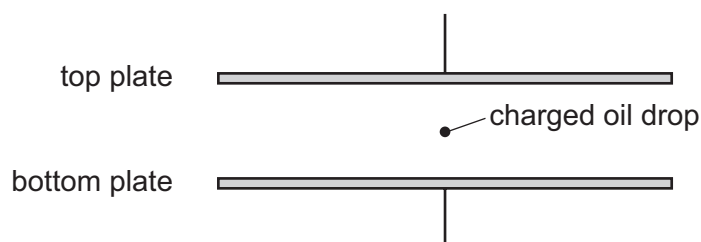
11 The diagram shows four forces applied to a circular object.

45 N

30 N

30 N

45 N

Which row describes the resultant force and resultant torque on the object?

	resultant force	resultant torque
A	non-zero	non-zero
B	non-zero	zero
C	zero	non-zero
D	zero	zero

12 A charged oil drop is held stationary between two charged parallel plates.

top plate

charged oil drop

bottom plate

Which forces act on the oil drop?

A   both electric and gravitational

B   electric only

C   gravitational only

D   neither electric nor gravitational