**The National Orthodox School /Shmaisani**

**Subject: Science/ Physics**

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**Date:19/9 Grade-Section: 8fCS**

Question 1) A block of weight 850N has a length of 0.5 m and a width of 0.4 m and a height of 0.3 m.

1. Find the smallest pressure that this block exerts on the g

P=F/A=850/0.2=8500/2=4250N/M^2 OR 4250 Pa

1. Find the largest pressure that this block exerts on the ground.

 P=F/A=850/0.12=85000/12=7,083.33N/M^2 OR 7,083.33 Pa

Question 2) The force applied to a 0.4 cm by 0.8 cm brake pad produces a pressure of 500 N/cm². Calculate the force applied to the brake pad.

 F=A\*P

 Area on which force acted = 0.4\*0.8 = 0.32m^2

Pressure = 500N/m^2

Force = pressure\*Area

Force = 500\*0.32 = 160 N