**The National Orthodox School /Shmaisani**

**Subject: Science/ Physics**

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**Date: 16-9-2022 Grade-Section: 8-D CS**

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 ground.

Pmin=f/amax

Amax=0.5\*0.4=0.2m2

Pmin=850/0.2=4250N/m2

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

Pmax=f/amin

Amin=0.5\*0.3=0.15m2

Pmax=850/0.15=127.5N/m2

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=P\*A

A=O.4\*0.8=0.32cm2

F=500\*0.32=160N