**The National Orthodox School /Shmaisani**

**Subject: Science/ Physics**

**Name: Title: Pressure Worksheet**

**Date: Grade-Section: 8- ……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.

Highest area= smallest pressure

0.4\*0.5=0.20 m^2= highest area

pressure=850/0.20=4250N/m^2

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

Lowest area= largest pressure

0.3\*0.4=0.12 m^2= smallest area

pressure= 850/0.12=7083.34 N/m^2

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.

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