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Shmaisani

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**Subject: Science/ Physics**

**Name: Isaiah**

**Title: Pressure Worksheet**

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**Grade-Section: 8- H CS**

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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.

a) Find the smallest pressure that this block exerts on the ground.

$$P_{\min} = F/A_{\max} = 850/0.5 \times 0.4 = 850/0.2 = \underline{4,250 \text{ N/M}^2}$$

b) Find the largest pressure that this block exerts on the ground.

$$P_{\max} = F/A_{\min} = 850/0.4 \times 0.3 = 850/0.12 = \underline{7,083.33 \text{ N/M}^2}$$

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

$$F = P \times A = 500 \times (0.4 \times 0.8) = 500 \times 0.32 = \underline{160 \text{ N}}$$

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