Question 1: Work out the pressure for each of the following.
Give suitable units for each answer.

(a) A box is placed on a table and exerts a force of 250N on an area of 20cm²
(b) An object is placed on the ground and exerts a force of 3000N on an area of 4m²
(c) An object is placed on the ground and exerts a force of 54N on an area of 0.5cm²
(d) A box is placed on a table and exerts a force of 124 newtons on an area of 10.5cm²
(e) An object is placed on the ground and exerts a force of 25958N on an area of 1.4m²

Question 2: Work out the force for each of the following.
In each case a box has been placed on the floor.

(a) The area of contact is 16cm² and the pressure exerted is 10N/cm²
(b) The area of contact is 1.5m² and the pressure exerted is 5000N/m²
(c) The area of contact is 660cm² and the pressure exerted is 8.2N/cm²
(d) The area of contact is 0.2m² and the pressure exerted is 1.2N/cm²
(e) The area of contact is 500cm² and the pressure exerted is 450000N/m²

Question 3: Work out the area of contact for each of the following.
In each case an object has been placed on the floor.
Give suitable units for each answer.

(a) The object exerts a force of 420N on the floor and the pressure on the floor is 20N/cm²
(b) The object exerts a force of 8590N on the floor and the pressure on the floor is 900N/m²
(c) The object exerts a force of 30N on the floor and the pressure on the floor is 600N/m²
(d) The object exerts a force of 3945N on the floor and the pressure on the floor is 200N/cm²

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Question 1:  Find the pressure exerted by a force of 180 newtons on an area of 50cm². Give your answer in newtons/m²

Question 2:  A cylinder is placed on a table.  
The cylinder has a weight of 400N and has a diameter of 10cm. 
Work out the pressure on the table in newtons/cm²

Question 3:  Two cubes are placed on a table. 
One cube has a side length of 4cm and the other cube has a cube length of 10cm. 
The weight of the smaller cube is 50N and the weight of the large cube is 250N 
Which cube exerts a greater pressure on the table?

Question 4:  A microwave is placed on a worktop. 
The area of the microwave in contact with the table is 600cm². 
The pressure of the microwave is 2450 Newtons/m². 
Work out the force exerted by the microwave on the worktop.

Question 5:  The pressure of a tyre is 32 pounds per square inch. 
Given 1 pound = 0.4536 kilograms 
1 inch = 2.54 centimetres 
Work out the pressure in grams per square centimetre.