

Use and apply the pressure formula

Maths

Mrs Dennett



Use and apply the pressure formula

1. Which of the units are for density?

N	N/m ²	N/cm ²	g/cm ²	kg/m ³
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2. Complete the table

Force	Area	Pressure
5 N	2 m ²	
1500 N	150 cm ²	
60 N		15 N/cm ²
	2.5 m ²	4 N/m ²
	1.4 cm ²	6 N/cm ²
12.5 N		1 N/cm ²

3. A box is placed on a table and exerts a force of 300 N on an area of 60 cm². What is pressure exerted on the table in N/cm²?

4. A cuboid is placed on the floor with a force of 44 N. The pressure exerted is 28 N/m². What is the area of the cuboid face that touches the floor? Give your answer to 1 decimal place.

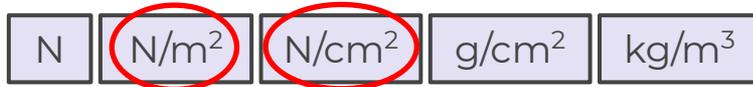


Answers



Use and apply the pressure formula

1. Which of the units are for density?



2. Complete the table

Force	Area	Pressure
5 N	2 m ²	2.5 N/m ²
1500 N	150 cm ²	10 N/cm ²
60 N	4 cm ²	15 N/cm ²
10 N	2.5 m ²	4 N/m ²
8.4 N	1.4 cm ²	6 N/cm ²
12.5 N	12.5 cm ²	1 N/cm ²

3. A box is placed on a table and exerts a force of 300 N on an area of 60 cm². What is pressure exerted on the table in N/cm²?

5 N/cm²

4. A cuboid is placed on the floor with a force of 44 N. The pressure exerted is 28 N/m². What is the area of the cuboid face that touches the floor?

Give your answer to 1 decimal place.

1.6 m²

