

## 7Kd Pressure

1 force, area, area; area, force, force

2 pascal, Pa

3 a The sharper the point, the smaller its area and the greater the pressure. This means that with a sharper point a smaller force is needed to achieve the same pressure so it is easier to push the pin into the wall.

b The force on your finger/thumb is the same as the force pushing the pin into the wall, so the area needs to be much larger than the point of the pin so that the pressure on your finger is small enough not to damage the skin.

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Box	Weight (N)	Area	Pressure	Units
A	6	1.5 cm <sup>2</sup>	4	N/cm <sup>2</sup>
B	9000	3 m <sup>2</sup>	3000	N/m <sup>2</sup>
C	6	20 cm <sup>2</sup>	0.3	N/cm <sup>2</sup>
D	200	0.5 m <sup>2</sup>	400	N/m <sup>2</sup>

Divide the area by the pressure.