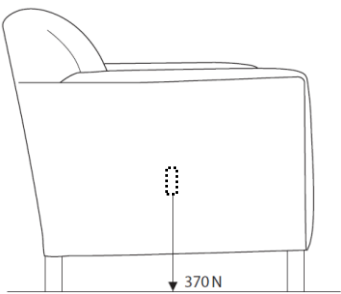


Question number	Answer	Notes	Marks
6 a	<p>X drawn at the base of the weight arrow within area shown by the dashed box;</p> 		1
b (i)	pressure = force ÷ area;	allow rearrangements and standard symbols e.g. $p=F/A$	1
(ii)	<p>weight on each foot OR total area found;</p> <p>substitution;</p> <p>evaluation;</p> <p>matching unit;</p> <p>e.g.  force on each foot = 92.5 (N) OR total area = 20.8 (cm<sup>2</sup>)  (pressure =) 92.5 / 5.2 OR 370 / 20.8  (pressure =) 18  N/cm<sup>2</sup></p>	<p>allow 92.5 or 20.8 seen anywhere in working</p> <p>allow any valid unit of pressure if no valid working seen</p> <p>17.788..., 17.8 allow 10<sup>4</sup> Pa or 10<sup>4</sup> N/m<sup>2</sup></p> <p>ignored factor of 4 gives 71 N/cm<sup>2</sup> gains 3 marks</p> <p>used 5.2<sup>2</sup> for area gives 3.4 N/cm<sup>2</sup> gains 3 marks</p> <p>used 5.2<sup>2</sup> for area and ignored factor of 4 gives 13.7 N/cm<sup>2</sup> gains 2 marks</p>	4
c	<p>MP1. (cups) increase (surface) area;</p> <p>MP2. force (on floor) remains the same;</p> <p>MP3. (since <math>p=F/A</math>) pressure (on floor) is decreased;</p>	ignore 'force is more spread out' / eq	3

Total for question 6 = 9 marks