



FIRST LEGO LEAGUE - Ontario

Questions	
Question 1 Science	<i>Circle the correct Answer.</i> Long load arms have a low/high mechanical advantage (compared to shorter ones).
Question 2 Science	<i>Circle the correct Answer.</i> As the mechanical advantage goes down, you need more/less power to lift up the cuboid.
Question 3 Science	<i>Fill in the blank.</i> If the MA is less than _____ the lever is making you weaker. If it is greater than _____ it is making you stronger.
Question 4 Science	The power needed showed us how much force was actually needed to lift the load. This shows us the pattern for the ACTUAL mechanical advantage (which compares forces not distances). It followed the same pattern as the ideal but changed more drastically. What is one possible reason for this?
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Question 5 Science	If a longer load arm takes greater effort, what is the benefit?
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