2nd term- Rivision Exercises

1) What is moment ?

2)

	Moment	Moment of a couple of forces
Definition		
Equation		
Unit		
Factors affect		
Examples		

3) Describe how the moment works in each case below.

I. Using a spanner to unscrew a nail.

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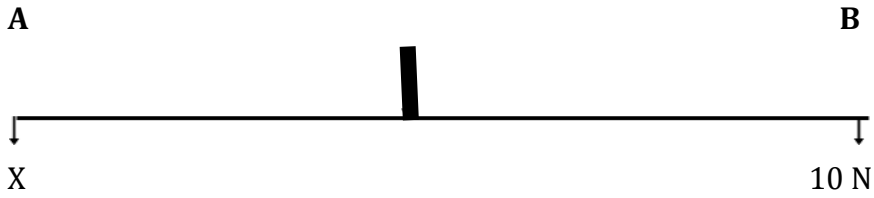
II. Applying force to the pedal when riding a bicycle.

.....

III. Using a wheelbarrow.

.....

4)



The figure above shows a 2m long rod. It is balanced right in the middle.

i. What is the clockwise moment that occurs at the end of A?

.....

ii. If the weight at the corner A remains the same and the weight at the corner B is removed and a weight is hung 0.5m away from the center, what is the weight that should be hung to rod to be balanced?

.....

.....

5.) Explain the equilibrium of force.

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.....

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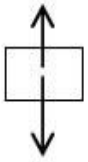
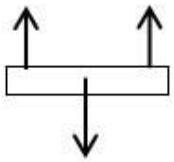
6) Fill in the blanks below according to the requirements for an object to be in equilibrium under two forces.

I. The two forces must have .....magnitudes.
II. The two forces must act along two ..... directions.
III. Both forces must lie along the ..... of action.



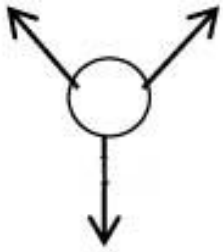
7) Fill in the blanks below with the requirements for an object to be in equilibrium under three parallel forces.

I. The three forces must be .....
II. The resultant of any two forces must be .....in magnitude and opposite in direction to the third force.



8) Fill in the blanks below with the requirements for an object to be in equilibrium under three non-parallel forces.

I. The three forces must be .....
II. The resultant of any two forces should be .....to the third force in magnitude, and opposite in direction.



9) 50kg mass is placed on a table.

I. What is its weight?.....
II. What is the resultant force if the object is in equilibrium? Mark the forces act on the object.
III. What is the perpendicular reaction on the object?

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