

Rotational Motion Diagram - 1

(a) Construct a rotational motion diagram of a merry-go-round rotating clockwise at a constant angular speed.

(b) Construct a rotational motion diagram of a merry-go-round rotating clockwise at an increasing speed.

(c) Construct a rotational motion diagram of a merry-go-round rotating clockwise at a decreasing speed.

Rotational Motion Diagram – 2

(a) Construct a rotational motion diagram of a merry-go-round rotating counter-clockwise at a constant angular speed.

(b) Construct a rotational motion diagram of a merry-go-round rotating counter-clockwise at an increasing angular speed.

(c) Construct a rotational motion diagram of a merry-go-round rotating counter-clockwise at a decreasing angular speed.

Motion Diagram – 3

(a) Construct a rotational motion diagram for the left rear wheel of a car tire that starts at rest and spins on an icy surface at increasing angular velocity.

(b) Construct a rotational motion diagram for the right rear wheel of a car tire that starts at rest and spins on an icy surface at increasing angular velocity.

Motion Diagram – 4

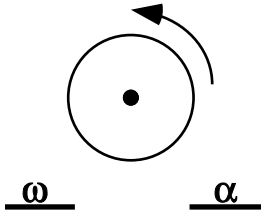
(b) Construct a rotational motion diagram for

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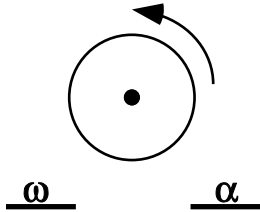
Rotational Motion Diagram – 5

For each situation below, indicate the direction of the angular velocity ω and of the angular acceleration α .
 [Note: in = into paper, out = out of paper, and 0 = zero.]

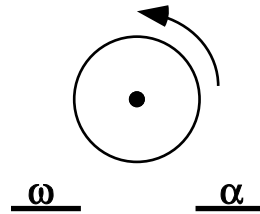
Disc turning at constant angular velocity in ccw direction



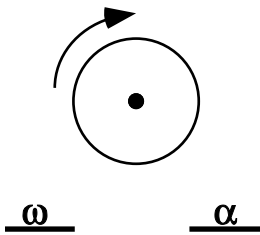
Increasing ω in ccw direction.



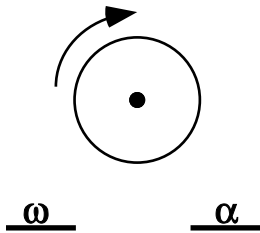
Decreasing ω in ccw direction.



Constant ω in the cw direction.



Increasing ω in the cw direction.



Decreasing ω in the cw direction.

