Quiz #7

1. If a problem asks "How many times does the wheel go around?" it is asking for

A) $\Delta\theta$ B) ω C) α

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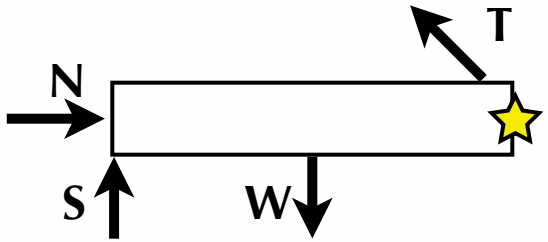
2. The figure shows the forces applied to a stationary rod.
Which force(s) exerts a counterclockwise (↺) torque around the pivot (marked with a star)?



A) N B) S C) T D) W E) T & W

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3. The length of an arc of a circle is equal to its radius times its angle, if the angle is measured in

A) degrees B) radians C) revolutions

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4. The frequency *f* of a rotation is

A) the angular velocity in rev/s
B) the angular displacement in degrees
C) the angular velocity in rpm
D) the angular acceleration in rev/s^2

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5. A wheel has $\omega = -4$ rad/s and an angular acceleration of $\alpha = -3$ rad/s^2. The wheel is

A) slowing down B) speeding up

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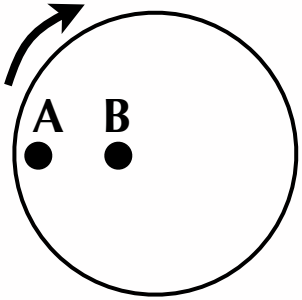
6. Two points are marked on a spinning wheel. Which of the following is true about the points' linear velocities *v* and angular velocities ω?



A) $v_A = v_B$, $\omega_A > \omega_B$ **B) $v_A = v_B$, $\omega_B > \omega_A$**
C) $v_A > v_B$, $\omega_A = \omega_B$ **D) $v_A < v_B$, $\omega_A = \omega_B$**