

Newton's 2nd Law part 1

Show your pictures and work here

m_{disk}	0.8755	Kg
r_{disk}		m
I_{disk}		Kg m ²
m_1	0.1	Kg
r_{pulley}		m
Tension equation		
h		m
t_1		s
t_2		s
t_3		s
t_4		s
t_{average}		s
a		m/s ²
α		rad/s ²
I_{system}		Kg m ²
I_{pulley}		Kg m ²

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m_{disk_1}	0.8755	Kg
m_{disk_2}	0.8755	Kg
r_{disk_1}		m
r_{disk_2}		m
I_{disk_1}		Kg m ²
I_{disk_2}		Kg m ²
m_1	0.55	Kg
m_2	0.55	Kg
r_{pulley1}		m
r_{pulley2}		m
h_1		m
t_1		s
t_2		s
t_3		s
t_4		s
t_{average}		s
a_1		m/s ²
α		rad/s ²
a_2		m/s ²
Tension 1 equation		
Tension 2 equation		
I_{system}		Kg m ²
I_{pulley}		Kg m ²

Average I_{pulley}		Kg m ²
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Inclined plane

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m_1	0.070	Kg
m_{sled}		Kg
x_1		m
x_2		m
Δx		m
h_1		m
h_2		m
Δh		m
flage width		m
t_1		s
t_{total}		s
v_o		m/s
v_f		m/s
r_{pulley}		m
Initial PE mass 1		J
Initial KE mass 1		J
Initial KE sled		J
ω_o		rad/s
Final KE mass 1		J
Final PE sled		J
Final KE sled		J
ω_f		rad/s
I_{pulley}		Kg m ²

Atwood's Machine Revisited

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$I_{\text{disk\&pulley}}$		Kg m^2
$r_{\text{iron hoop}}$		m
m_1		Kg
m_2		Kg
h		m
t_1		s
t_2		s
t_3		s
t_4		s
t_{average}		s
v_f		m/s
ω_f		rad/s
$I_{\text{iron hoop}}$		Kg m^2

Demolition Derby Again

Show your pictures and work here

$I_{\text{disk 1 \& pulley}}$		Kg m^2
$I_{\text{disk 2}}$		Kg m^2
t_1		s
t_2		s
ω_o		rad/s
$\omega_f \text{ experimental}$		rad/s
$\omega_f \text{ theoretical}$		rad/s
$\%_{\text{error}}$		

List any sources of error: