A math equations and formulas on a white background

Description automatically generatedA paper with text and numbers

Description automatically generatedA math problem with numbers and equations

Description automatically generated with medium confidenceA math question with text

Description automatically generated with medium confidence

8. Work and Energy Part 2

7. Work and Energy Part 1

A math equations and formulas

Description automatically generated with medium confidenceA math equations and formulas on a white paper

Description automatically generatedA math problem with text

Description automatically generated with medium confidenceA math problem with numbers and equations

Description automatically generated with medium confidenceA math problem with a math problem

Description automatically generated with medium confidenceA math problem with a black text

Description automatically generated with medium confidenceA math problem with numbers and equations

Description automatically generated with medium confidenceA math equations and formulas on a white paper

Description automatically generatedA paper with text and numbers on it

Description automatically generatedA screenshot of a test

Description automatically generatedA paper with math equations and formulas

Description automatically generatedA paper with math equations and numbers

Description automatically generatedA close-up of a question

Description automatically generated

12. Rotation and Moment of Inertia Part 2

11. Rotation and Moment of Inertia Part 1

10. Momentum and Collisions Part 2

9. Momentum and Collisions Part 1

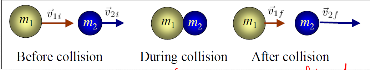
A white paper with writing on it

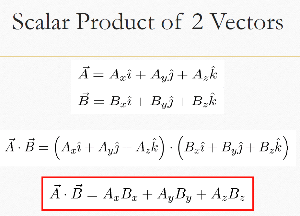
Description automatically generatedA screen shot of a computer

Description automatically generatedA close-up of a paper

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Description automatically generatedA square root of a mathematical equation

Description automatically generated

Time present = use at

Else use ar (if ask for centipedal, use ar)

Arc length

Radial acceleration

tangent acceleration

**I =½**MR^2

Moment of Inertia for different objects

A group of math equations

Description automatically generated

A diagram of a cylinder

Description automatically generated

Moment of Inertia

A math equations on a white paper

Description automatically generated

A close up of text

Description automatically generated

Parallel axis theorem A text on a white background

Description automatically generated

Angular Motion (Rotational motion of body)

A white paper with black text

Description automatically generatedA math equations with red squares

Description automatically generated with medium confidence

Kinematics (Angular vs Linear)

A set of black symbols

Description automatically generated with medium confidence A math equations and formulas

Description automatically generated with medium confidence

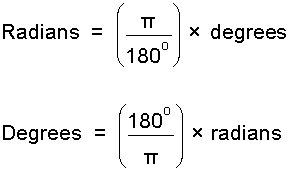
θ – θ0 = 1/2(ω0 + ω) t

A diagram of a hand and a hand pointing at a hand

Description automatically generated with medium confidenceA close up of words

Description automatically generated

θ => can be use to find m and angle/rad



Centre of Mass (Shaped object)

Xcm = A math equation with plus and two symbols

Description automatically generated with medium confidence

Centre of Mass (System of particles)

A math equation with black letters and numbers

Description automatically generated with medium confidence

Centre of Mass (Extended Object)

A math equation with a red border

Description automatically generated

Characteristics of CM

A close up of a text

Description automatically generated

Centre of mass (Right angle triangle)

A square with black numbers and a red border

Description automatically generated A white rectangular sign with black text

Description automatically generated

Centre of mass (Cone)

A close up of a letter

Description automatically generated with medium confidence

Motion of system of particles

A diagram of a equation

Description automatically generatedA screenshot of a white paper with text

Description automatically generated

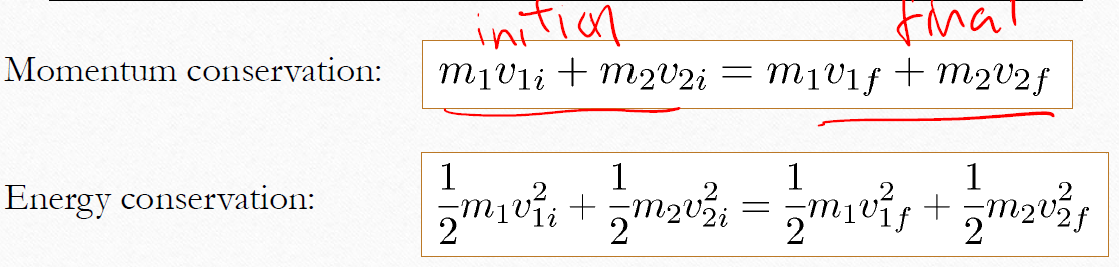
Momentum and Collision

P = mv (Momentum)

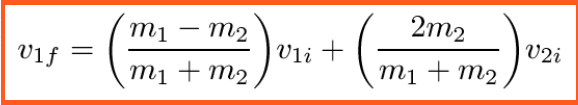
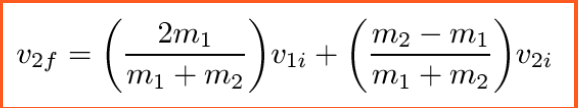
P = KE =

**Remember where all forces and momentum are present.**

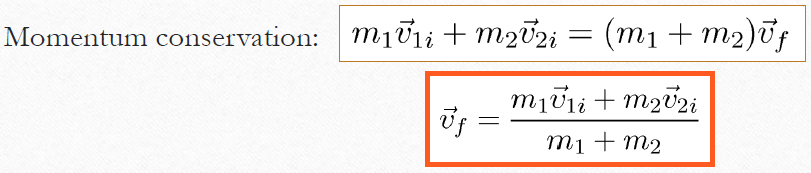
Elastic Collision



Final Velocity

Inelastic Collision



Inelastic Collision

**Momentum found at collision.**

Properties of conservative force

Force is independent of path.

Force at end = Force at start

Power

P = mv(Momentum)

Pav = W/t

SI unit : Watt(W)

1 horsepower = 746W

1 kWh = 103 x 3600 Ws = 3.6 MJ

Reminder

F = μmg = ma = mg

J = F x T

Work Done

**W = F . S(Constant)**

**W = KE = ½mv^2(Kinetic)**

**W = GPE = mg**

**h (Gravitational)**

**W = SE = ½kx^2(Spring)**

**W = KE = ½mv^2­­f – ½v^2i**

**W = KEf + GPEf = KEi + GPEi**

**(Same idea for GPE & SE when displacement occur)**

**Momentum from start and end is the same(conserved)** 

**Mechanical energy (ME) = KE = GPE = SE**

A white paper with writing on it

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