

Booklet # 51 B

Find the mass of the Gold



Name:

Friendly reminder: Use Hooke's Law, Newton's Second Law to solve the problem.

Step # 1:

Make a Hypothesis: What is the mass of Gold Cylinder

Step # 2 :

Hang the **Gold** Cylinder to the Spring # 3 to find the displacement : X_{Gold} (6 point)

What is X_{Gold} ?	Show your Step # 1 work:

.Step # 3:

Hang the 50 gram Cylinder to the Spring # 1 to find the F_1 (6 point)

What is F_1 ?	Show your Step # 2 work:

Step # 4:

Hang the 100 gram Cylinder to the Spring # 2 to find the F_2 (6 point)

What is F_2 ?	Show your Step # 3 work:

Sep # 5:

Write the Hooke's Law (6 point)

What is the Hooke's Law?	Show your work for Step # 4 (Ske
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Step # 6: Find the displacement 50 gram cylinder...(6 point)

What is the displacement of Spring #1?	Show your work for Step # 5
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Step # 7: Find the displacement 100 gram cylinder...(6 point)

What is the displacement of Spring # 2?	Show your work for Step # 6
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Step # 8: Find the Spring Constant (K) for Green Cylinder...(6 point)

What is the Value of K?	Show your work for Step # 7
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Step # 9: Find the force acting on the **Gold** Cylinder...(6 point)

What is the F_{Gold} (Use Hooke's Law)	Show your work for Step # 8
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Step # 10: Find the mass of **Gold** Cylinder by using Newton's Second Law (6 point)

What is the Mass of Gold Cylinder?	Show your work for Step # 9
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Step # 11: Convert the KG to gram (6 point)

What is the Mass of Gold Cylinder?	Show your work for Step # 10
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Step # 12: Accept/reject the Hypothesis

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