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[ STUDENT > restart;
[ STUDENT >
[ STUDENT > Imass:=simplify(int(int((x^2+y^2)*rho,x=-b/2..b/2),y=-h/2.
      .h/2) * (m / (b*h*rho)));

```

$$I_{mass} := \frac{1}{12} (b^2 + h^2) m$$

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[ STUDENT > # Above agrees with result.
[ STUDENT > # Repeat by showing more intermediate steps (I1 and I2 are
      intermediate integrals, suffix withlimits means they are
      applied with limits of integration):
[ STUDENT > I1:=int((x^2+y^2)*rho,x);

```

$$I1 := \rho \left( \frac{1}{3} x^3 + y^2 x \right)$$

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[ STUDENT > I1withlimits:=int((x^2+y^2)*rho,x=-b/2..b/2);

```

$$I1withlimits := \frac{1}{12} \rho b^3 + \rho y^2 b$$

```

[ STUDENT > I2:=int(I1withlimits,y);

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$$I2 := \frac{1}{12} \rho b^3 y + \frac{1}{3} \rho y^3 b$$

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[ STUDENT > I2withlimits:=int(I1withlimits,y=-h/2..h/2);

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$$I2withlimits := \frac{1}{12} \rho b^3 h + \frac{1}{12} \rho h^3 b$$

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[ STUDENT > Imass:=simplify(I2withlimits*m/(rho*b*h));

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$$I_{mass} := \frac{1}{12} (b^2 + h^2) m$$

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[ STUDENT >

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