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| --- |
| //Geometry.java - Jimmy Kurian |
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| --- |
| public class Geometry |
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| --- |
| { |
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| --- |
| public static double sphereVolume(double r) |
|  |

|  |
| --- |
| { |
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|  |
| --- |
| return (4.0 / 3.0) \* Math.PI \* r \* r \* r; |
|  |

|  |
| --- |
| } |
|  |

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|  |
| --- |
| public static double sphereSurface(double r) |
|  |

|  |
| --- |
| { |
|  |

|  |
| --- |
| return 4.0 \* Math.PI \* r \* r; |
|  |

|  |
| --- |
| } |
|  |

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| --- |
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| --- |
| public static double cylinderVolume(double r, double h) |
|  |

|  |
| --- |
| { |
|  |

|  |
| --- |
| return h \* Math.PI \* r \* r; |
|  |

|  |
| --- |
| } |
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|  |
| --- |
| public static double cylinderSurface(double r, double h) |
|  |

|  |
| --- |
| { |
|  |

|  |
| --- |
| return (2.0 \* r \* Math.PI \* h) + (2.0 \* Math.PI \* r \* r); |
|  |

|  |
| --- |
| } |
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| --- |
| public static double coneVolume(double r, double h) |
|  |

|  |
| --- |
| { |
|  |

|  |
| --- |
| return (1.0 / 3.0) \* Math.PI \* r \* r \* h; |
|  |

|  |
| --- |
| } |
|  |

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|  |
| --- |
| public static double coneSurface(double r, double h) |
|  |

|  |
| --- |
| { |
|  |

|  |
| --- |
| return Math.PI \* r \* (h + r); |
|  |

|  |
| --- |
| } |
|  |

}

|  |
| --- |
| //GeometryTester.java - Jimmy Kurian |
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| --- |
| import java.util.Scanner; |
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|  |
| --- |
| public class GeometryTester |
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|  |
| --- |
| { |
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| --- |
| public static void main(String[] args) |
|  |

|  |
| --- |
| { |
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|  |
| --- |
| Scanner in = new Scanner(System.in); |
|  |

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|  |
| --- |
| System.out.println("Please enter the radius: "); |
|  |

|  |
| --- |
| double r = in.nextDouble(); |
|  |

|  |
| --- |
|  |
|  |

|  |
| --- |
| System.out.println("Please enter the height: "); |
|  |

|  |
| --- |
| double h = in.nextDouble(); |
|  |

|  |
| --- |
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| --- |
| System.out.println("The volume of the sphere is: " |
|  |

|  |
| --- |
| + Geometry.sphereVolume(r)); |
|  |

|  |
| --- |
| System.out.println("The surface area of the sphere is: " |
|  |

|  |
| --- |
| + Geometry.sphereSurface(r)); |
|  |

|  |
| --- |
| System.out.println("The volume of the cylinder is: " |
|  |

|  |
| --- |
| + Geometry.cylinderVolume(r, h)); |
|  |

|  |
| --- |
| System.out.println("The surface area of the cylinder is: " |
|  |

|  |
| --- |
| + Geometry.cylinderSurface(r, h)); |
|  |

|  |
| --- |
| System.out.println("The volume of the cone is: " |
|  |

|  |
| --- |
| + Geometry.coneVolume(r, h)); |
|  |

|  |
| --- |
| System.out.println("The surface area of the cone is: " |
|  |

|  |
| --- |
| + Geometry.coneSurface(r, h)); |
|  |

|  |
| --- |
| } |
|  |

}