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| **Volume of Cylinders, Cones and Spheres** |
| $$Volume of Cone=\frac{1}{3}πr^{2}h$$ | $$Volume of Cylinder=πr^{2}h$$ | $$Volume of Sphere=\frac{4}{3}πr^{3}$$ |
| **(a)** | **(b)** | **(c)** |
| Find the volume, giving your answer in terms of $π$ | Find the volume, giving your answer to the nearest cm3  | Find the volume, giving your answer to 3 significant figures  |
| **(d)** | **(e)** | **(f)** |
| Find the volume, giving your answer to 3 significant figures | Find the volume, giving your answer to 2 decimal places | Find the volume, leaving your answer in terms of $π$ |
| **(g)** | **(h)** | **(i)** |
| Find the volume of the hemisphere to the nearest cm3  | The cone has a volume of $39π cm^{3}$. Find the height $h$. | The cylinder has a volume of $6100 mm^{2}. $Find its radius to the nearest mm. |
| **(j)** | **(k)** |
| A shape is made by joining a hemisphere to a cylinder. Both have a radius of $6.5 cm$. Find the total volume of the shape. | A shape is made by joining a cone to a hemisphere, where both shapes have the same radius. The total volume is $402π cm^{3}$. Find the height of the cone.  |