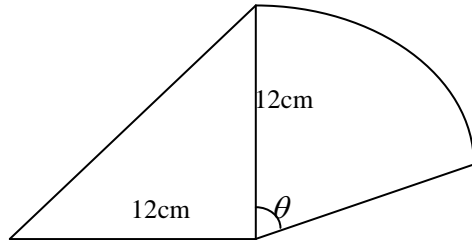


Integrated Math 1: Perimeter, Surface Area, Volume Name: _____

Alternative Assessment.

- Show your method clearly. Include diagrams or sketches if this will help to explain your work.
- Justify every answer. Remember, explaining what you did is not a justification.
- There will be 8 marks awarded for each question (see the scoring charts)

1) A landscape gardener is designing an area of garden comprised of an isosceles right angled triangle and a sector of a circle as shown below (not to scale).



The gardener wishes the perimeter of the garden to be 55cm. Determine the measure of angle θ .
Give your answer to the nearest degree.

Working and solutions:	Justification:	M(3):	
		A(1):	
		C(2):	
		J(2):	
		Tot	

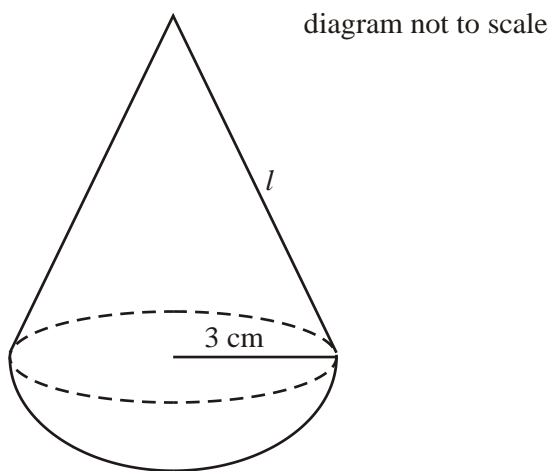
2) A sphere has a volume of 2000cm^3 . What is its surface area? Give your answer in cm^2 to 3 significant figures.

Working and solutions:	Justification:	M(3):	
		A(1):	
		C(2):	
		J(2):	
		Tot	

3) A cylinder has a height 3 times its base radius. The surface area of the cylinder is 400cm^2 . What is the height of the cylinder? Give your answer in cm to 3 significant figures.

Working and solutions:	Justification:	M(3):	
		A(1):	
		C(2):	
		J(2):	
		Tot	

4) A child's toy is made by combining a hemisphere of radius 3 cm and a right circular cone of slant height l as shown on the diagram below.



The volume of the cone is two-thirds that of the hemisphere.

Calculate the slant height of the cone. Give your answer in cm to 3 significant figures.

Working and solutions:	Justification:	M(3):	
		A(1):	
		C(2):	
		J(2):	
		Tot	