

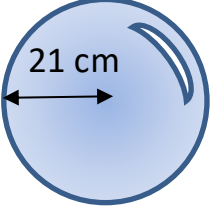
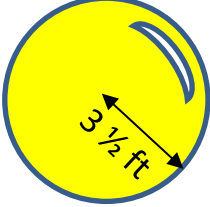
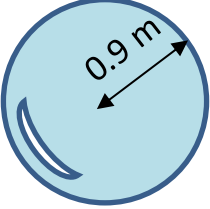
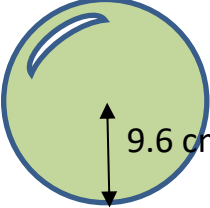
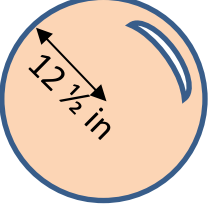
Name

Date



SURFACE AREA OF A SPHERE SHEET 1

Use the radius measurement to find the area of these spheres. Give your answers to 1 decimal place.

| SPHERE | WORKING OUT | AREA |
|--|-------------|------|
| 1)  | | |
| 2)  | | |
| 3)  | | |
| 4)  | | |
| 5)  | | |



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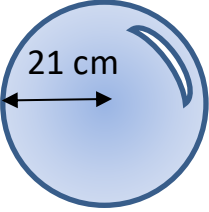
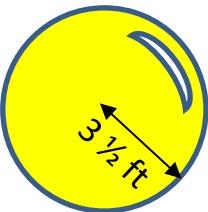
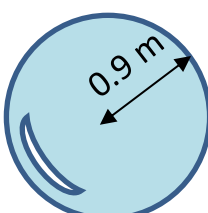
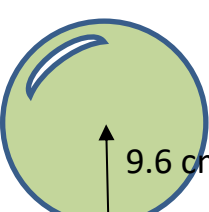
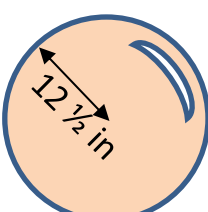
Name

Date



SURFACE AREA OF A SPHERE SHEET 1 ANSWERS

Use the radius measurement to find the area of these spheres. Give your answers to 1 decimal place.

| SPHERE | WORKING OUT | AREA |
|--|---|------------------------|
| 1)  | $\begin{aligned} \text{Surface area of a sphere} &= 4\pi r^2 \\ &= 4 \times \pi \times (21)^2 = 4 \times \pi \times 441 = 1764 \pi \\ &= 5541.8 \text{ cm}^2 \text{ to 1 decimal place} \end{aligned}$ | 5541.8 cm ² |
| 2)  | $\begin{aligned} \text{Surface area of a sphere} &= 4\pi r^2 \\ &= 4 \times \pi \times (3 \frac{1}{2})^2 = 4 \times \pi \times (49/4) = 49 \pi \\ &= 153.9 \text{ ft}^2 \text{ to 1 decimal place} \end{aligned}$ | 153.9 ft ² |
| 3)  | $\begin{aligned} \text{Surface area of a sphere} &= 4\pi r^2 \\ &= 4 \times \pi \times (0.9)^2 = 4 \times \pi \times (0.81) = 3.24 \pi \\ &= 10.2 \text{ m}^2 \text{ to 1 decimal place} \end{aligned}$ | 10.2 m ² |
| 4)  | $\begin{aligned} \text{Surface area of a sphere} &= 4\pi r^2 \\ &= 4 \times \pi \times (9.6)^2 = 4 \times \pi \times (92.16) = 368.64 \pi \\ &= 1158.1 \text{ cm}^2 \text{ to 1 decimal place} \end{aligned}$ | 1158.1 cm ² |
| 5)  | $\begin{aligned} \text{Surface area of a sphere} &= 4\pi r^2 \\ &= 4 \times \pi \times (12 \frac{1}{2})^2 = 4 \times \pi \times (625/4) = 625 \pi \\ &= 1963.5 \text{ in}^2 \text{ to 1 decimal place} \end{aligned}$ | 1963.5 in ² |