## PERIMETER OF A SECTOR SHEET 3 (RADIANS)

Use the radius and angle measurement in radians to find the perimeter of these sectors.

|  |  | WORKING OUT | PERIMETER |
| :---: | :---: | :---: | :---: |
| 1) |  |  |  |
| 2) |  |  |  |
| 3) |  |  |  |
| 4) |  |  |  |
| 5) |  |  |  |
| 6) |  |  |  |

## PERIMETER OF A SECTOR SHEET 3 (RADIANS) ANSWERS

Use the radius and angle measurement to find the perimeter of these sectors.

|  |  | WORKING OUT | PERIMETER |
| :---: | :---: | :---: | :---: |
| 1) |  | $\begin{aligned} & P=2 r+L \\ & L=\theta \cdot r=1.8 \times 7=12.6 \\ & P=2 \times 7+12.6=14+12.6=26.6 \mathrm{~cm} \end{aligned}$ | 26.6 cm |
| 2) |  | $\begin{aligned} & P=2 r+L \\ & L=\theta \cdot r=2.1 \times 81 / 2=(357 / 20)=17.85 \\ & P=2 \times 81 / 2+17.85=17+17.85=34.85 \text { in } \end{aligned}$ | 34.85 in |
| 3) |  | $\begin{aligned} & P=2 r+L \\ & L=\theta \cdot r=2.8 \times 21 / 2=7 \\ & P=2 \times 21 / 2+7=5+7=12 \mathrm{ft} \end{aligned}$ | 12 ft |
| 4) |  | $\begin{aligned} & P=2 r+L \\ & L=\theta \cdot r=1 \times 2.6=2.6 \\ & P=2 \times 2.6+2.6=7.8 \mathrm{~m} \end{aligned}$ | 7.8 m |
| 5) |  | $\begin{aligned} & P=2 r+L \\ & L=\theta \cdot r=11 / 2 \times 5=7.5 \\ & P=2 \times 5+7.5=10+7.5=17.5 \mathrm{in} \end{aligned}$ | 17.5 in |
| 6) |  | $\begin{aligned} & P=2 r+L \\ & L=\theta \cdot r=4.7 \times 24=112.8 \\ & P=2 \times 24+112.8=48+112.8=160.8 \mathrm{~cm} \end{aligned}$ | 160.8 cm |

