

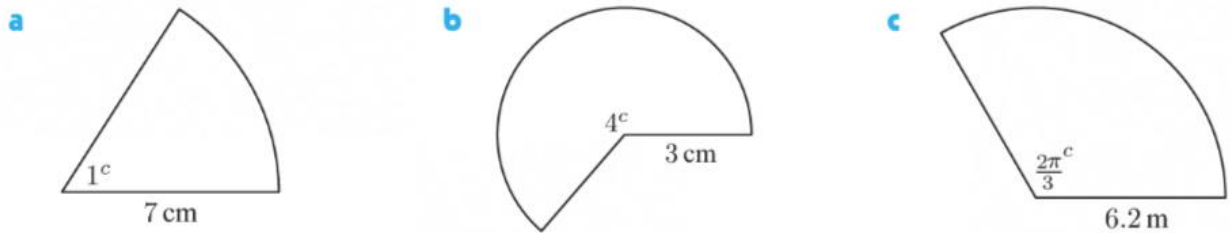
1 Convert to radians, in terms of  $\pi$ :

- |               |               |               |               |               |
|---------------|---------------|---------------|---------------|---------------|
| a $90^\circ$  | b $60^\circ$  | c $30^\circ$  | d $18^\circ$  | e $9^\circ$   |
| f $135^\circ$ | g $225^\circ$ | h $270^\circ$ | i $360^\circ$ | j $720^\circ$ |
| k $315^\circ$ | l $540^\circ$ | m $36^\circ$  | n $80^\circ$  | o $230^\circ$ |

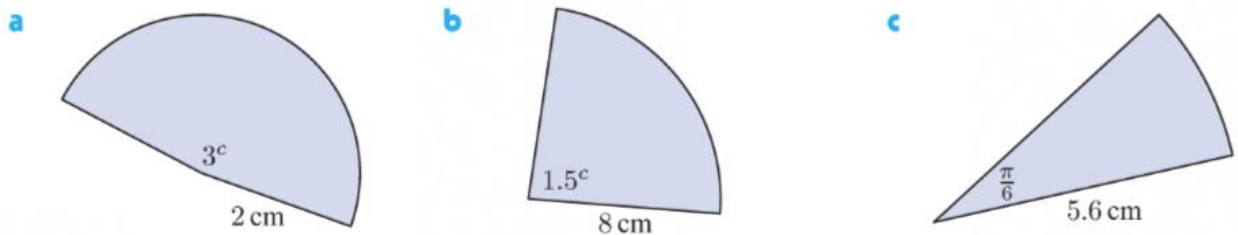
3 Convert to degrees:

- |                    |                    |                     |                    |                   |
|--------------------|--------------------|---------------------|--------------------|-------------------|
| a $\frac{\pi}{5}$  | b $\frac{3\pi}{5}$ | c $\frac{3\pi}{4}$  | d $\frac{\pi}{18}$ | e $\frac{\pi}{9}$ |
| f $\frac{7\pi}{9}$ | g $\frac{\pi}{10}$ | h $\frac{3\pi}{20}$ | i $\frac{7\pi}{6}$ | j $\frac{\pi}{8}$ |

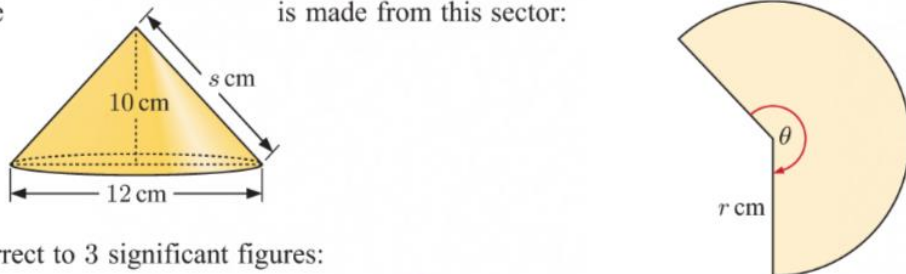
1 Find the arc length of each sector:



2 Find the area of each sector:

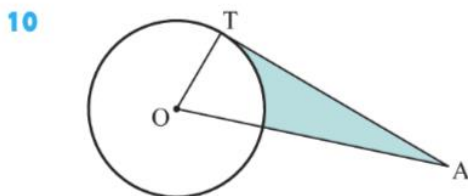


9 The cone is made from this sector:

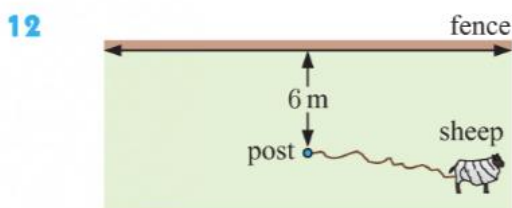


Find, correct to 3 significant figures:

- |                                |   |
|--------------------------------|---|
| a the slant length $s$ cm      | b the value of $r$                      |
| c the arc length of the sector | d the sector angle $\theta$ in radians. |



[AT] is a tangent to the given circle.  $OA = 13$  cm and the circle has radius 5 cm. Find the perimeter of the shaded region.



A sheep is tethered to a post which is 6 m from a long fence. The length of the rope is 9 m. Find the area which the sheep can feed on.

