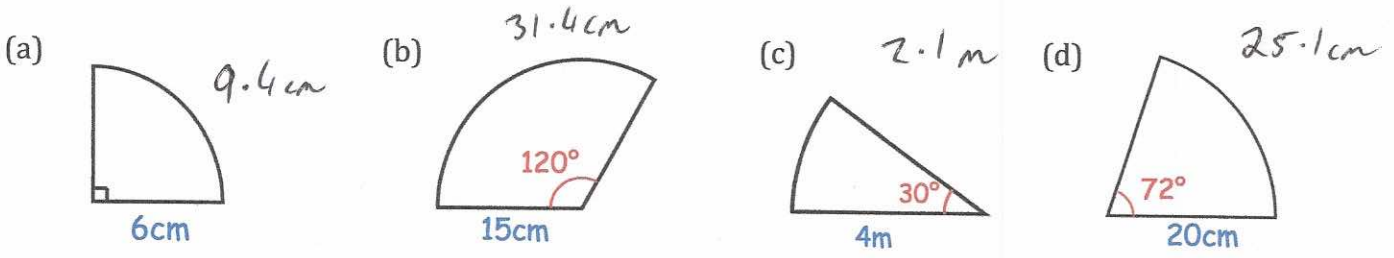


Arc Length

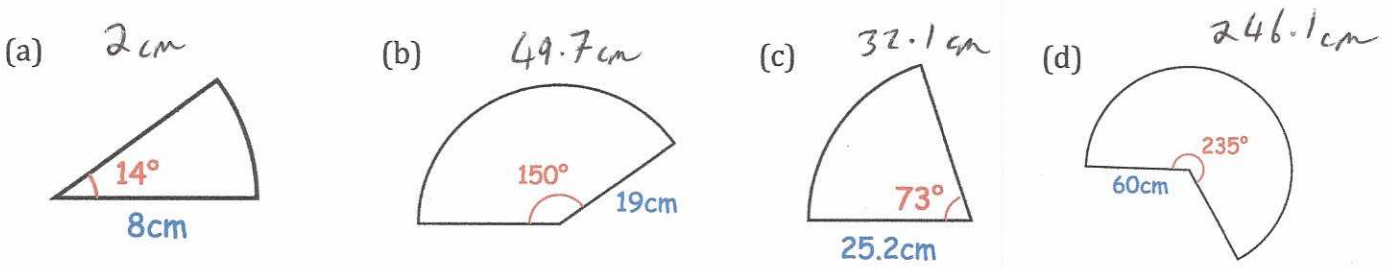
Video 58 on www.corbettmaths.com

Workout

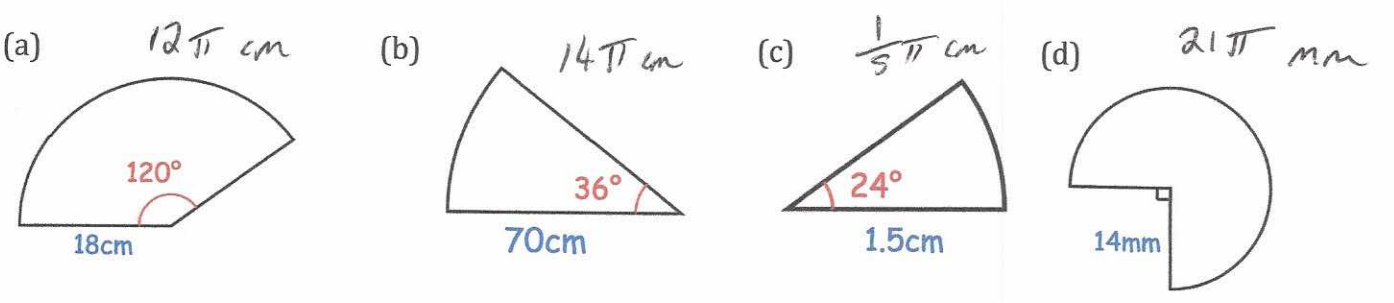
Question 1: For each sector below, calculate the length of the arc.
Give your answers to one decimal place and include suitable units.



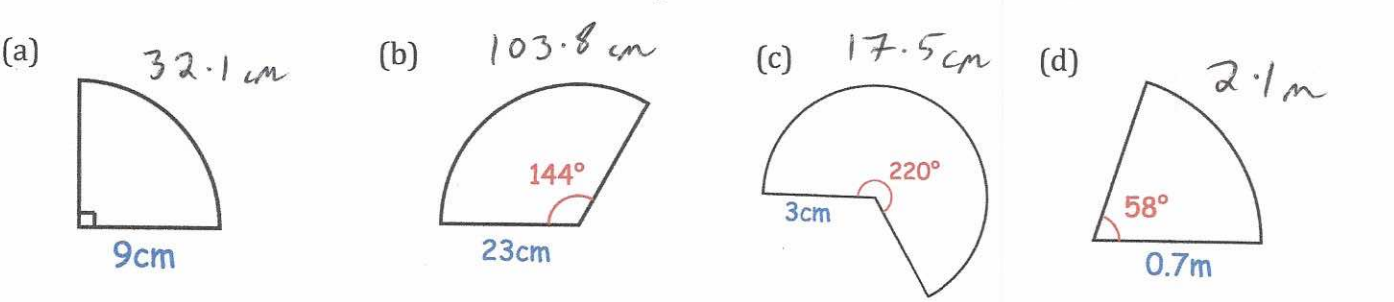
Question 2: For each sector below, calculate the length of the arc.
Give your answers to one decimal place and include suitable units.



Question 3: For each sector below, calculate the length of the arc.
Leave your answer in terms of π



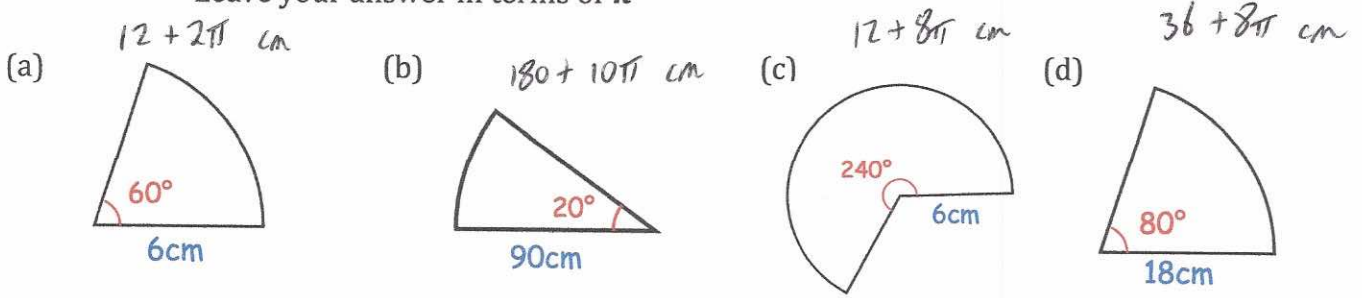
Question 4: Calculate the perimeter of each sector below
Give your answers to one decimal place and include suitable units.



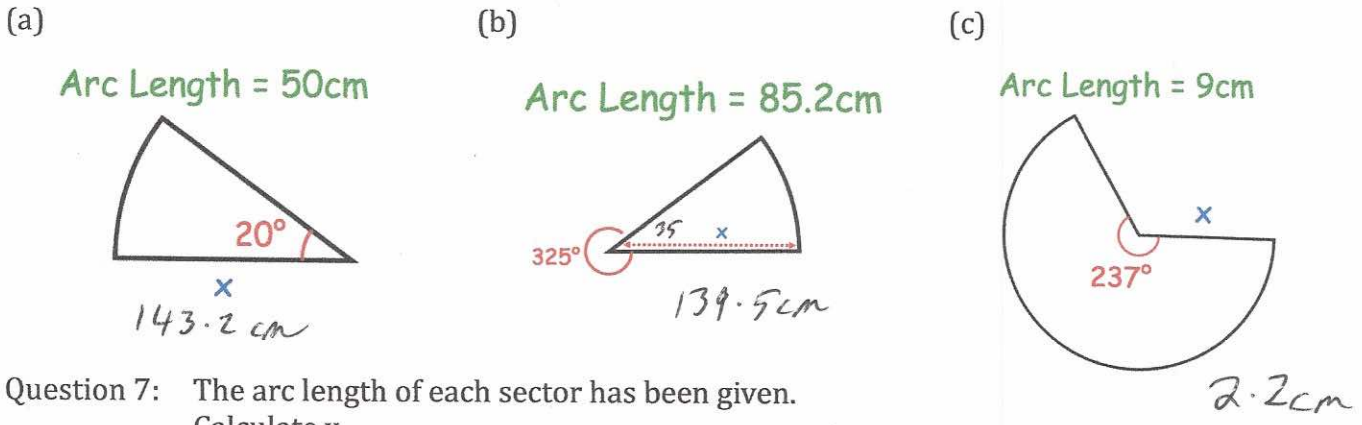
Arc Length

Video 58 on www.corbettmaths.com

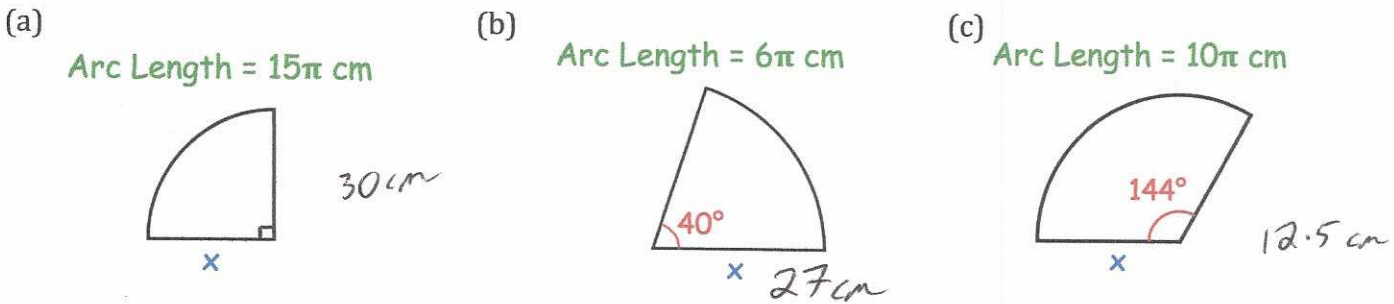
Question 5: Calculate the perimeter of each sector below
Leave your answer in terms of π



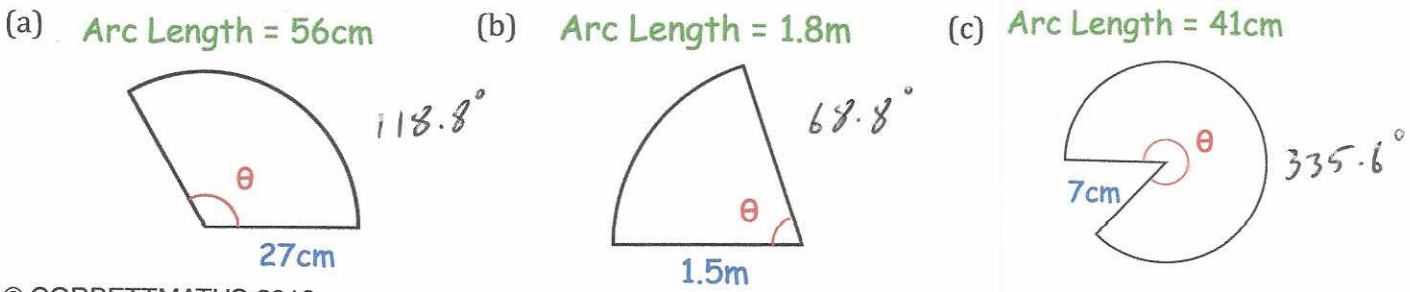
Question 6: The arc length of each sector has been given.
Calculate x
Give your answers to one decimal place and include suitable units.



Question 7: The arc length of each sector has been given.
Calculate x



Question 8: The arc length of each sector has been given.
Calculate the size of the angle
Give your answers to one decimal place.

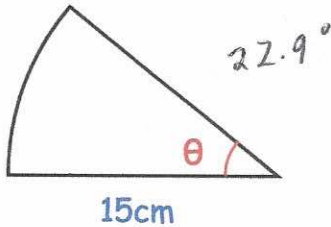


Arc Length

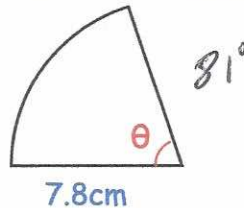
Video 58 on www.corbettmaths.com

Question 9: The perimeter of each sector has been given.
Calculate the size of the angle
Give your answers to one decimal place.

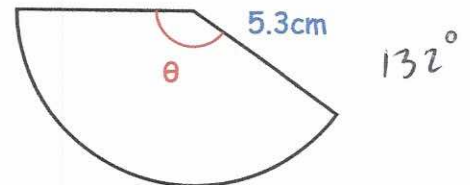
(a) Perimeter = 36cm



(b) Perimeter = 26.63cm

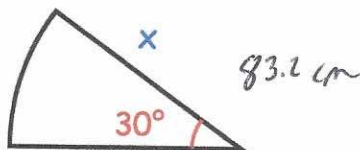


(c) Perimeter = 22.81cm

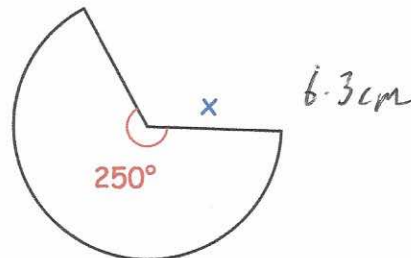


Question 10: The perimeter of each sector has been given.
Calculate x
Give your answers to one decimal place.

(a) Perimeter = 210cm

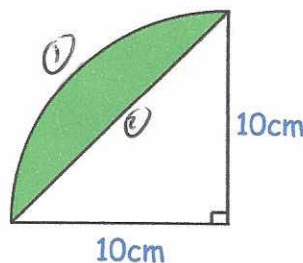


(b) Perimeter = 40cm



Apply

Question 1: Calculate the perimeter of the segment.

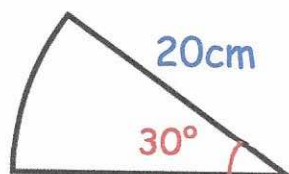


(1) = 15.7079...

(2) = 14.142 cm

Perimeter = 29.85 cm

Question 2: James is calculating the perimeter of the sector.
Can you spot any mistakes?



Perimeter
 $= \frac{30}{360} \times \pi \times 20$
 $= 5.236 \text{ cm}$