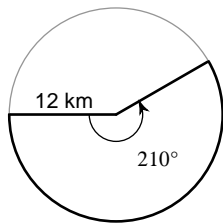


Circles- Finding Sector Area and Arc Lengths

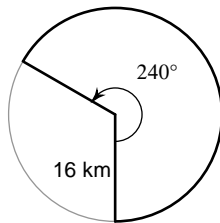
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Find the area of each sector. Write the general proportion formula, substitute in values, give exact area in terms of pi and also a decimal approximation to the tenths place. Ex 70.6 square feet.

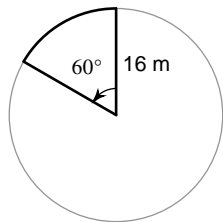
1)



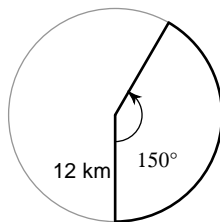
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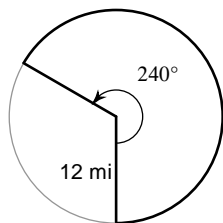
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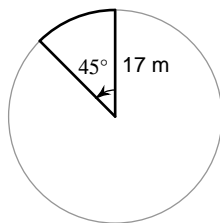
4)



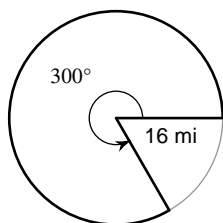
5)



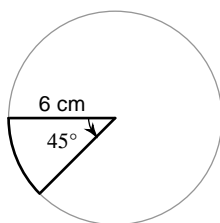
6)



7)



8)



9) $r = 3$ in, $\theta = 285^\circ$

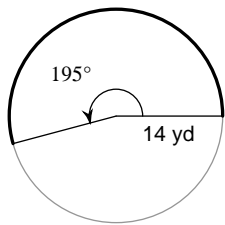
10) $r = 16$ m, $\theta = 270^\circ$

11) $r = 11$ in, $\theta = 240^\circ$

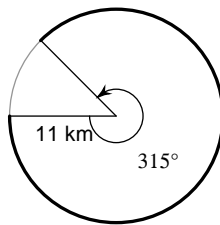
12) $r = 11$ ft, $\theta = 45^\circ$

Find the length of the arc- record a proportion, solve, give exact and decimal approximation - include length units.

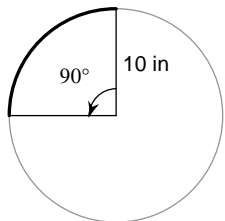
13)



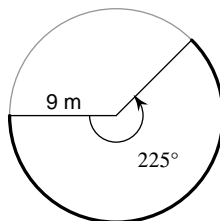
14)



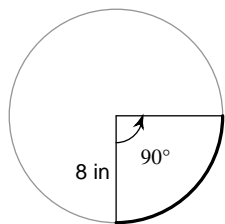
15)



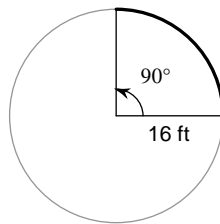
16)



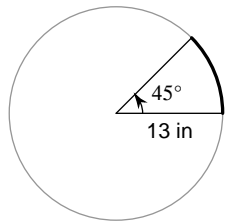
17)



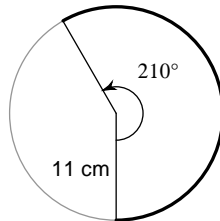
18)



19)



20)



21) $r = 8 \text{ in}, \theta = 225^\circ$

22) $r = 16 \text{ ft}, \theta = 60^\circ$

23) $r = 5 \text{ yd}, \theta = 240^\circ$

24) $r = 9 \text{ cm}, \theta = 150^\circ$

Answers to Circles- Finding Sector Area and Arc Lengths (ID: 1)

1) $84\pi \text{ km}^2$

2) $\frac{512\pi}{3} \text{ km}^2$

3) $\frac{128\pi}{3} \text{ m}^2$

4) $60\pi \text{ km}^2$

5) $96\pi \text{ mi}^2$

6) $\frac{289\pi}{8} \text{ m}^2$

7) $\frac{640\pi}{3} \text{ mi}^2$

8) $\frac{9\pi}{2} \text{ cm}^2$

9) $\frac{57\pi}{8} \text{ in}^2$

10) $192\pi \text{ m}^2$

11) $\frac{242\pi}{3} \text{ in}^2$

12) $\frac{121\pi}{8} \text{ ft}^2$

13) $\frac{91\pi}{6} \text{ yd}$

14) $\frac{77\pi}{4} \text{ km}$

15) $5\pi \text{ in}$

16) $\frac{45\pi}{4} \text{ m}$

17) $4\pi \text{ in}$

18) $8\pi \text{ ft}$

19) $\frac{13\pi}{4} \text{ in}$

20) $\frac{77\pi}{6} \text{ cm}$

21) $10\pi \text{ in}$

22) $\frac{16\pi}{3} \text{ ft}$

23) $\frac{20\pi}{3} \text{ yd}$

24) $\frac{15\pi}{2} \text{ cm}$