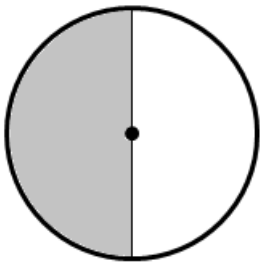
12.3 – Circumference and Arc Length

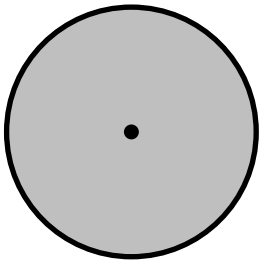
Name_____Hr_____

What fraction of each circle is shaded?

1.



2.



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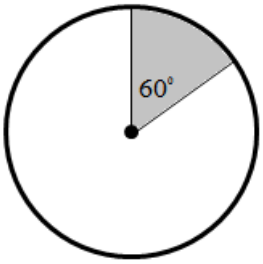

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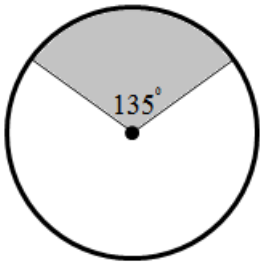
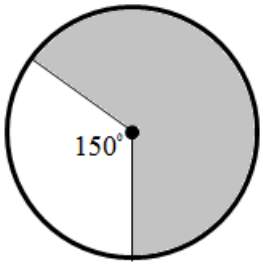
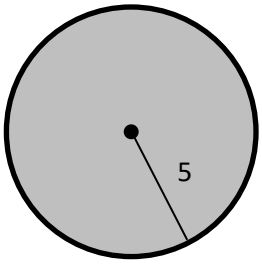


5.



Find the length of each arc that intercepts the shaded sector.

6.



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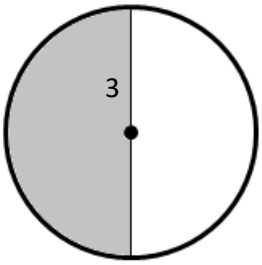

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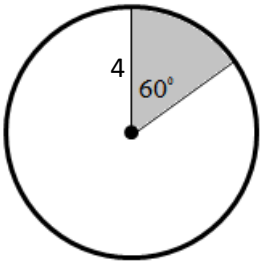

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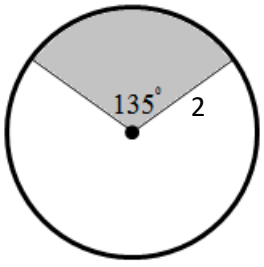
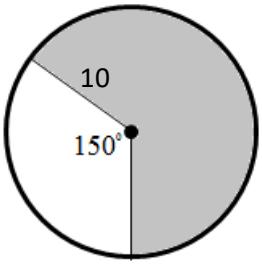
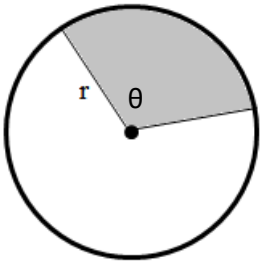


10.



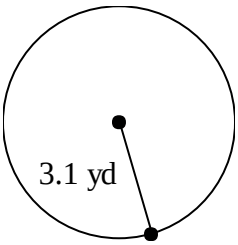
11.



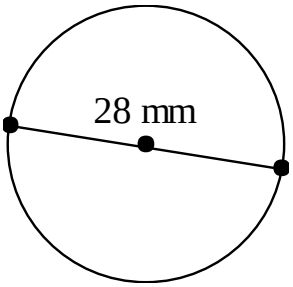
12. What is a general formula to find the arc length of a circle?

Find the Circumference of the following circles.

13.



14.



The radius, diameter, or circumference of a circle is given. Find the missing measures. Round your answers to the nearest hundredth if necessary.

15. $r = 7\ mm, d =$_____, $C =$_____.

16. $C = 26\pi\ mi, d =$_____, $r =$_____.

17. $d = 26.8\ cm, r =$_____, $C =$_____.

18. $C = 76.4\ m, d =$_____, $r =$_____.

Given the Circumference Find the radius of a circle.

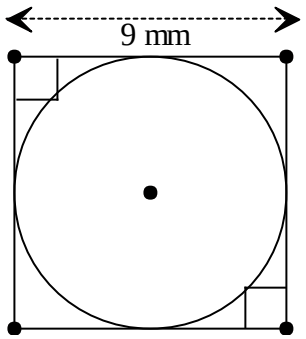
19. $C = 9\ cm$

20. $C = 15\ cm$

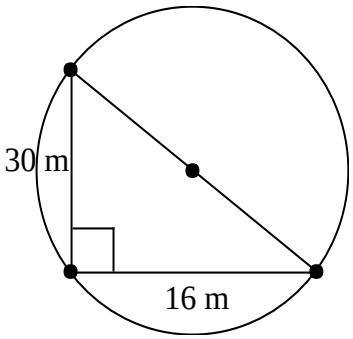
21. $C = 64cm$

Find the EXACT (leave π in you answer) circumference of the circle. (figures not to scale)

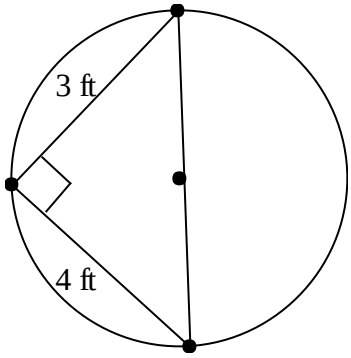
22.



23.



24.



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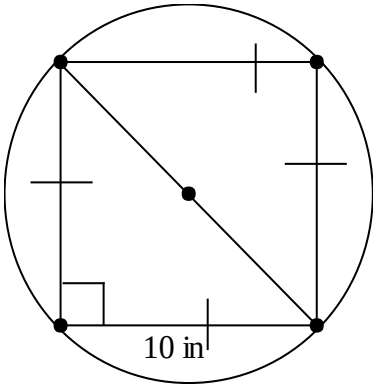
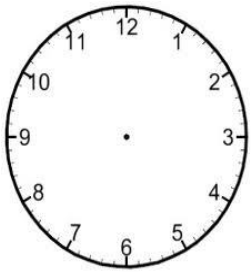


Consider a standard 12 hour clock like the one below with a radius of 5 inches. Use this to answer questions 26-27. (Always use the shortest distance)



26. What is the length of the arc between the 3 and the 7?

27. It is 7:20. What is the length of the arc between the minute and hour hands?