Name the following in ⊙G.
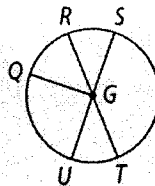
1. the minor arcs

2. the major arcs

3. the semicircles

Find the measure of each arc in ⊙B.

4. $\overparen{GJ}$

5. $\overparen{HI}$

6. $\overparen{HIJ}$

7. $\overparen{GJI}$

8. $\overparen{GHJ}$

9. $\overparen{GJH}$

10. $\overparen{HGJ}$

11. $\overparen{GH}$

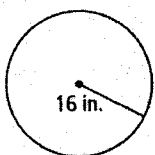12. $\overparen{GHI}$

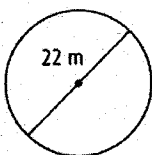13. $\overparen{HJI}$

14. $\overparen{JHI}$

15. $\overparen{JIG}$
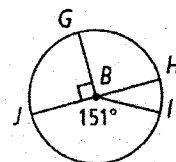
Find the circumference of each circle. Leave your answers in terms of π.
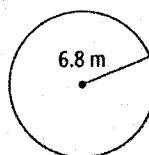
16. 16 in.

17. 22 m

18. 6.8 m

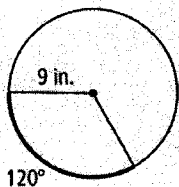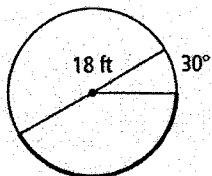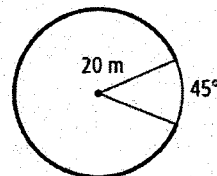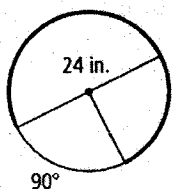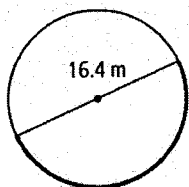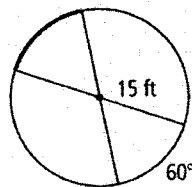**Find the length of each darkened arc. Leave your answer in terms of π.**

23. 9 in.   120°

24. 18 ft   30°

25. 20 m   45°

26. 24 in.   90°

27. 16.4 m

28. 15 ft   60°

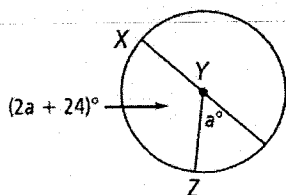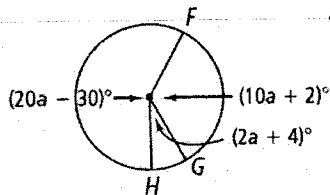**Algebra Find the value of each variable.**

38. X Y $(2a + 24)°$ $a°$ Z

39. F $(20a − 30)°$ $(10a + 2)°$ $(2a + 4)°$ G H

40. $5x°$ $(5x − 10)°$
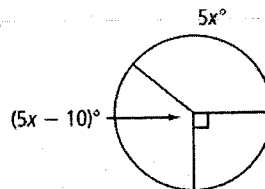
20. The wheels on Reggie's bike each have a 20-in. diameter. His sister's mountain bike has wheels that each have a 26-in. diameter. To the nearest inch, how much farther does Reggie's sister's bike travel in one revolution than Reggie's bike?

21. A Ferris wheel has a 50-m radius. How many kilometers will a passenger travel during a ride if the wheel makes 10 revolutions? Round your answer to the nearest tenth of a kilometer.
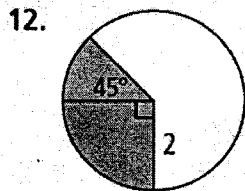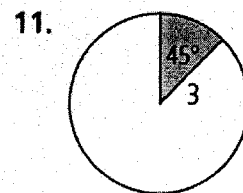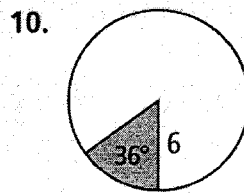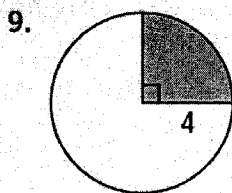
Find the area of each shaded sector of a circle. Leave your answer in terms of π.

9.

10.

11.

12.

13.

14.

15.

16.

17.
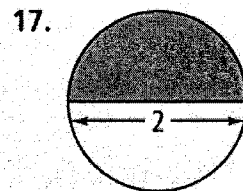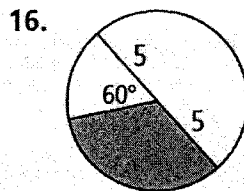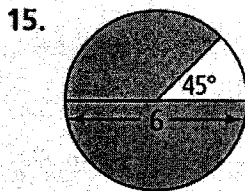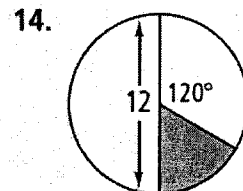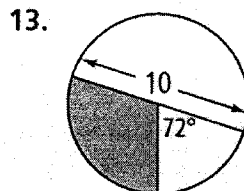
Find the area of sector RST in $\odot S$ using the given information. Leave your answer in terms of π.

22. $r = 3$ in., $m\overparen{RT} = 30$

23. $r = 8$ mm, $m\overparen{RT} = 90$

24. $d = 10$ ft, $m\overparen{TR} = 180$

25. $d = 13$ m, $m\overparen{TR} = 120$