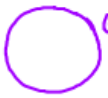
QR p 325 # 1–4 circumference of a circle

$C = 2\pi r$



1. $C = 5\pi$ in
2. $C = 9.2\pi$ m
3. $r = \frac{6}{\pi}$ m
4. ~~$r = \frac{8}{\pi}$~~ Ft $r = \frac{4}{\pi}$ ft

$A = \pi r^2$

$C = 8$

$C = 2\pi r$

$\frac{8}{2\pi} = \frac{2\pi r}{2\pi}$

$\frac{4}{\pi} = r$

17-24 Conversion Factor $\frac{\pi}{180^\circ}$ or $\frac{180^\circ}{\pi}$

17. 30°

18. 45°

19. 18°

20. 108° $\quad \frac{3\pi}{5} \cdot \frac{180^\circ}{\pi} = \frac{540^\circ}{5} = 108^\circ$

21. 140°

$\frac{7\pi}{9} \cdot \frac{180^\circ}{\pi}$

22. 117° $\quad \frac{\pi}{3}$

23. 2 rad

$2 \cdot \frac{180^\circ}{\pi} = \frac{360^\circ}{\pi} \approx 115^\circ$

24. 74.48°

25 - 32 $s = r\theta$ if θ is given in °

$s = \frac{\pi}{180} \cdot r\theta$

25. 50 in
26. 70 cm
27. $\frac{6}{\pi}$ ft
28. $\frac{7.5}{\pi}$ cm
29. 3 rad
30. $\frac{4}{7}$ rad

θ given in °

31. $\frac{360}{\pi}$ cm
32. $\frac{\pi}{2}$ ft

27. $s = 1.5$ ft, $\theta = \frac{\pi}{4}$

$s = r\theta$

$\frac{4}{\pi} \cdot 1.5 = r \cdot \frac{\pi}{4} \cdot \frac{4}{\pi}$

ft $\frac{6}{\pi} = r$

31. $s = 40$, $\theta = 20°$

$s = \frac{\pi}{180} r\theta$

$\frac{9}{\pi} \cdot 40 = \frac{\pi}{180} \cdot r \cdot 20 \cdot \frac{9}{\pi}$

$\frac{360°}{\pi} = r$

32. $s = ?$, $r = 5$, $\theta = 18°$

$s = \frac{\pi}{180} r\theta$

$s = \frac{\pi}{180} \cdot 5 \cdot 18°$

$s = \frac{\pi}{2}$

QR p 334 1 - 4 Pythagorean theorem

1. $5\sqrt{2}$
2. $4\sqrt{13}$
3. 6
4. $2\sqrt{3}$