



Geometry - Circle Partial Area and Circumference - Intro

- 1** Given this equation for the circumference, what is the diameter of this circle

$$C = \pi \cdot 10$$

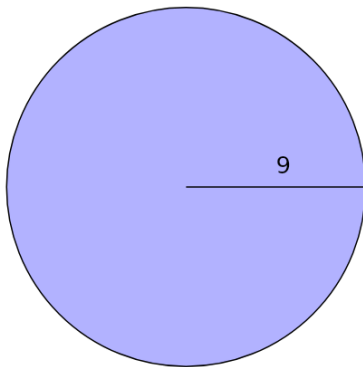
A	$d = 10$	B	$d = 6$
C	$d = 13$	D	$d = 5$
E	$d = 9$	F	$d = 11$

- 2** Given this equation for the circumference, what is the radius of this circle

$$C = 2 \cdot \pi \cdot 11$$

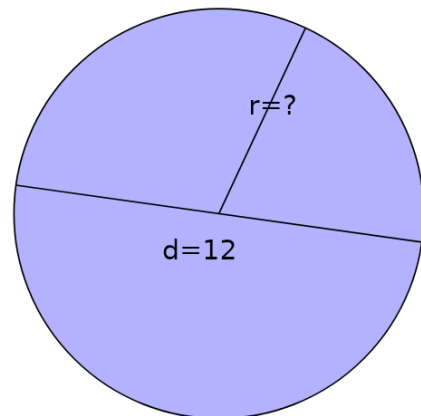
A	$r = 9$	B	$r = 6$
C	$r = 8$	D	$r = 13$
E	$r = 11$	F	$r = 10$

- 3** What is the area of the circle as a function of π



A	17π	B	49π
C	121π	D	25π
E	81π	F	97π

- 4** Find the radius of the circle that has the given diameter



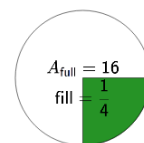
A	6	B	4	C	8
D	5	E	7		

- 5** The area of the full circle is 12. What is the area of the green shaded $\frac{1}{2}$ sector?



A	2	B	6	C	11
D	3	E	15	F	9

- 6** The area of the full circle is 16. What is the area of the green shaded $\frac{1}{4}$ sector?

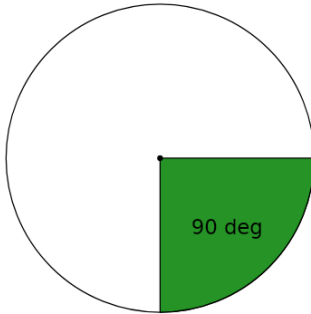


A	8	B	13	C	2
D	4	E	3	F	11



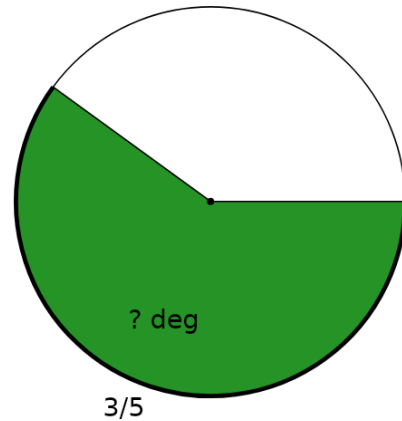
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- 7** What fraction of the circle's circumference is within a sector with an angle of 90° ?



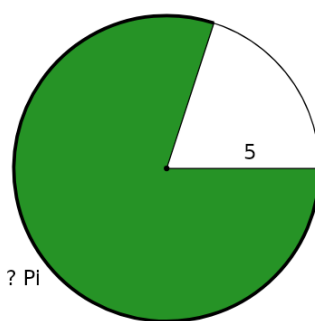
A	1	B	$\frac{1}{4}$
C	$\frac{1}{3}$	D	$\frac{1}{10}$
E	$\frac{1}{2}$		

- 8** What is the sector angle if it contains $\frac{3}{5}$ of the circumference?



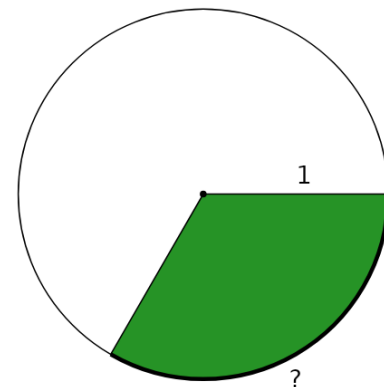
A	216°	B	72°	C	45°
D	90°	E	270°	F	108°

- 9** What is the arc length of $\frac{4}{5}$ of the circle's circumference if the radius is 5?



A	2π	B	$\frac{5}{2}\pi$
C	$\frac{8}{3}\pi$	D	8π
E	$\frac{1}{3}\pi$		

- 10** What is the arc length of $\frac{1}{3}$ of the circle's circumference if the radius is 1 (to nearest integer)?

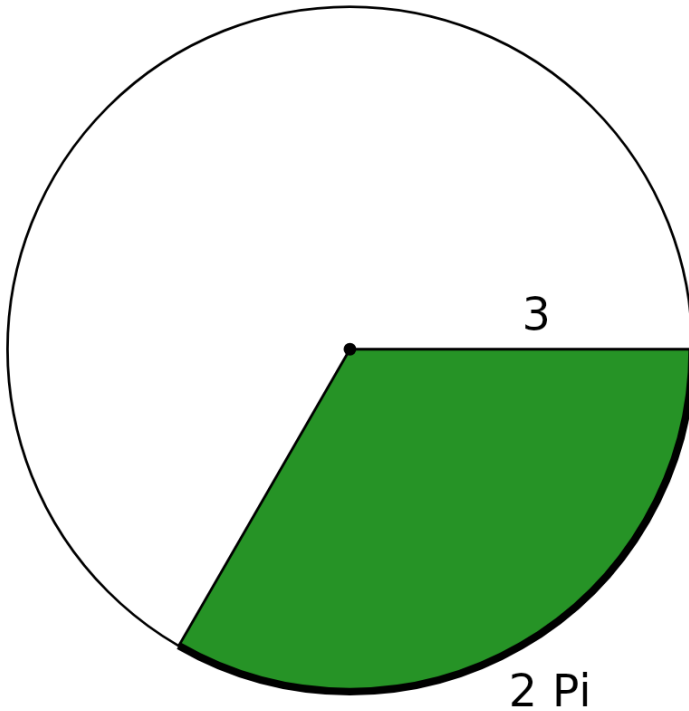


A	6	B	3	C	1
D	2	E	4	F	0



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11 What fraction of the circle's circumference has an arc length of 2π if the radius is 3?



A

$$\frac{1}{2}$$

B

$$\frac{1}{6}$$

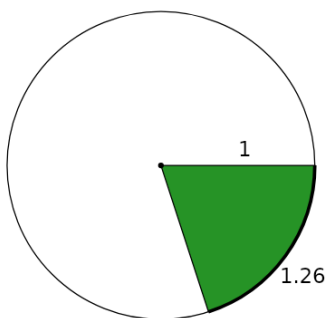
C

$$\frac{1}{3}$$

D

$$\frac{1}{5}$$

12 What fraction of the circle's circumference has an arc length of 1.26 if the radius is 1?



A

$$\frac{1}{3}$$

B

$$\frac{1}{5}$$

C

$$\frac{1}{6}$$

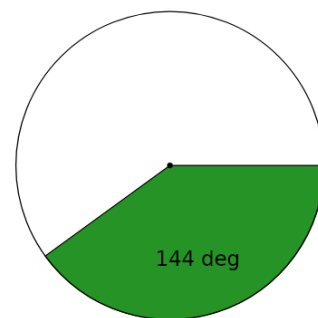
D

$$1$$

E

$$\frac{1}{4}$$

13 What fraction of the circle's area is shaded if the sector has an angle of 144° ?



A

$$\frac{1}{5}$$

B

$$\frac{1}{2}$$

C

$$\frac{2}{5}$$

D

$$\frac{1}{3}$$

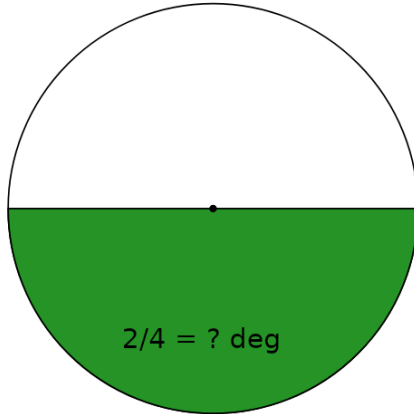
E

$$\frac{3}{5}$$



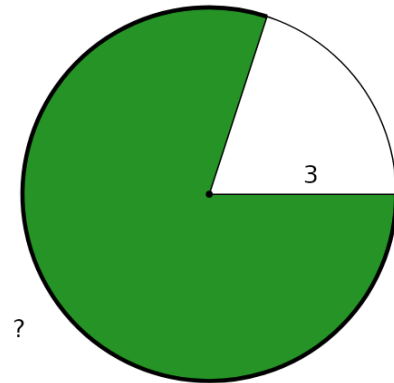
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- 14** What is the sector angle if $\frac{2}{4}$ of it is shaded?



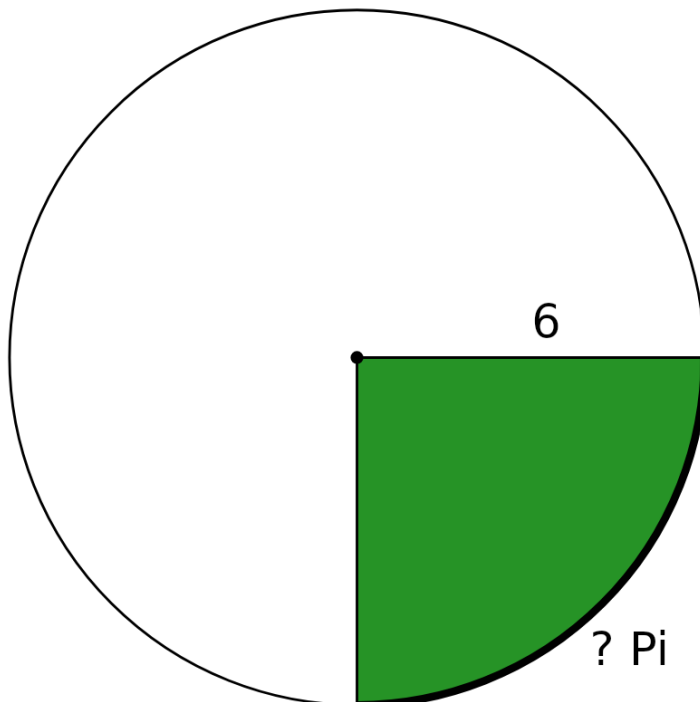
A 180°	B 72°	C 60°
D 90°	E 120°	F 144°

- 15** What is the arc length of a $\frac{4}{5}$ sector of a circle if the radius is 3 (to nearest integer)?



A 11	B 17	C 12
D 14	E 15	F 19

- 16** What is the arc length of a $\frac{1}{4}$ sector of a circle if the radius is 6?

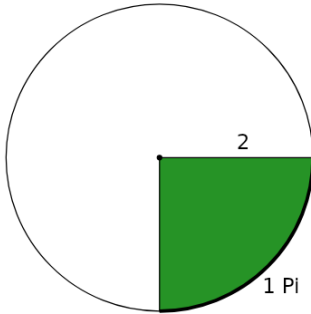


A $\frac{1}{3}\pi$
B 3π
C $\frac{1}{2}\pi$
D $\frac{7}{5}\pi$



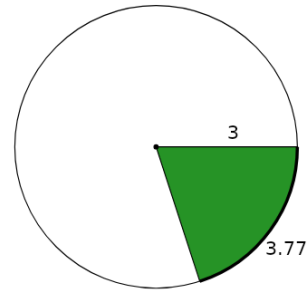
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- 17** What fraction of the circle's area is shaded if the radius is 2 and the arc length is 1π ?



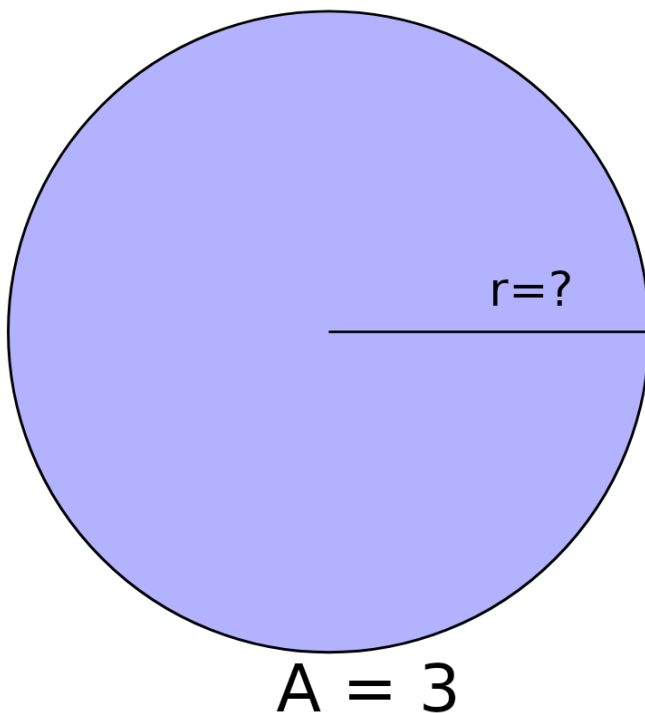
A	$\frac{1}{5}$	B	1
C	$\frac{3}{2}$	D	$\frac{1}{3}$
E	$\frac{1}{4}$		

- 18** What fraction of the circle's area is shaded if the radius is 3 and the arc length is 3.77?



A	$\frac{1}{5}$	B	$\frac{2}{3}$
C	$\frac{3}{4}$	D	$\frac{1}{2}$
E	$\frac{1}{4}$		

- 19** If the area of this circle is 3, what is its radius?

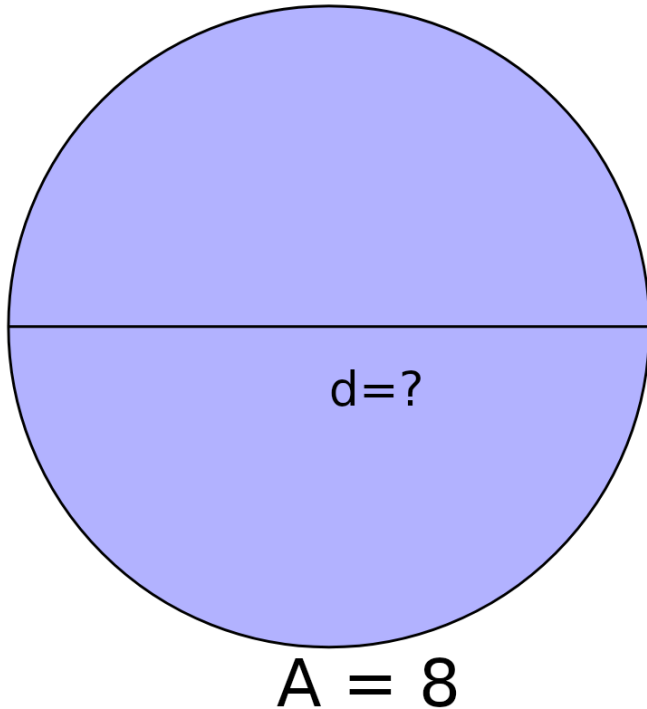


A	$r = \sqrt{\frac{3}{\pi}}$
B	$r = \sqrt{\frac{2 \cdot \pi}{3}}$
C	$r = 3 \cdot \sqrt{\frac{2}{\pi}}$
D	$r = \sqrt{\frac{3}{2 \cdot \pi}}$



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20 If the area of this circle is 8, what is its diameter?



A

$$d = 2 \cdot \sqrt{\frac{8}{2 \cdot \pi}}$$

B

$$d = \sqrt{\frac{2 \cdot \pi}{8}}$$

C

$$d = 2 \cdot \sqrt{\frac{8}{\pi}}$$

D

$$d = 8 \cdot \sqrt{\frac{2}{\pi}}$$

21 If the area of this circle is 3, what is its radius?

$$A = \pi \cdot r^2$$

$$3 = \pi \cdot r^2$$

A

$$r = \sqrt{\frac{3}{\pi}}$$

B

$$r = \sqrt{\frac{3}{2 \cdot \pi}}$$

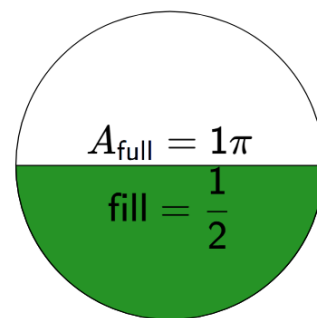
C

$$r = \sqrt{\frac{2 \cdot \pi}{3}}$$

D

$$r = 3 \cdot \sqrt{\frac{2}{\pi}}$$

22 The area of the full circle is 1π . What is the area of the green shaded $\frac{1}{2}$ sector?



A

$$4\pi$$

B

$$\frac{9}{2}\pi$$

C

$$\frac{7}{2}\pi$$

D

$$\frac{1}{2}\pi$$

E

$$\frac{3}{2}\pi$$



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23 If the area of this circle is 8, what is its diameter?

$$A = \pi \cdot \left(\frac{d}{2}\right)^2$$

$$8 = \pi \cdot \left(\frac{d}{2}\right)^2$$

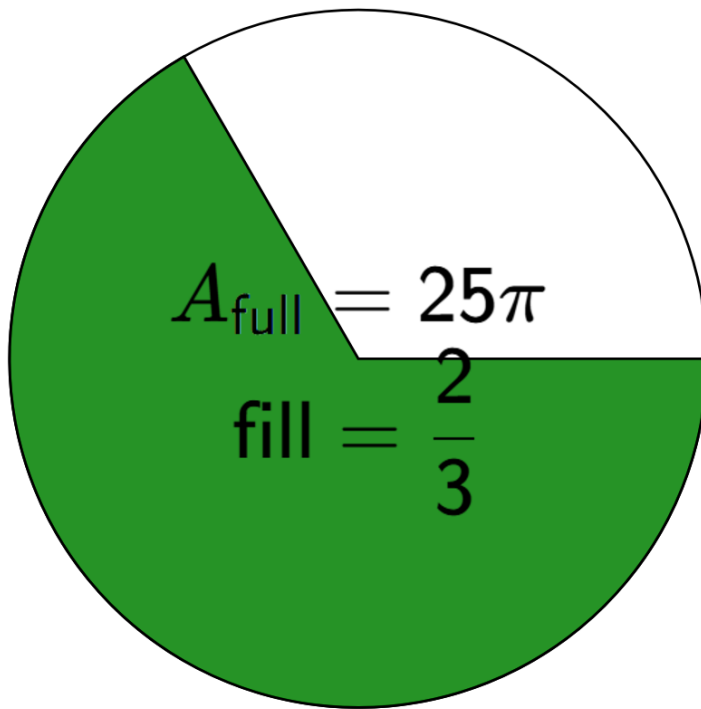
A $d = 2 \cdot \sqrt{\frac{8}{2 \cdot \pi}}$

B $d = 2 \cdot \sqrt{\frac{8}{\pi}}$

C $d = 8 \cdot \sqrt{\frac{2}{\pi}}$

D $d = \sqrt{\frac{2 \cdot \pi}{8}}$

24 The area of the full circle is 25π . What is the area of the green shaded $\frac{2}{3}$ sector?



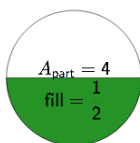
A $\frac{50}{3}\pi$

B $\frac{80}{3}\pi$

C $\frac{20}{3}\pi$

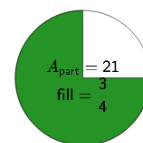
D $\frac{95}{3}\pi$

25 The area of the green shaded $\frac{1}{2}$ sector is 4. What is the area of the full circle?



A	16	B	5	C	13
D	14	E	8	F	11

26 The area of the green shaded $\frac{3}{4}$ sector is 21. What is the area of the full circle?



A	32	B	22	C	20
D	36	E	42	F	28