

Geometry - Circle Area, Sectors and Donuts - Intro

- 1 The area of the full circle is 8. What is the area of the green shaded $\frac{1}{2}$ sector ?



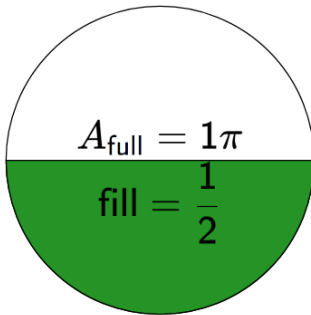
A	11	B	8	C	3
D	4	E	6	F	5

- 2 The area of the full circle is 8. What is the area of the green shaded $\frac{2}{4}$ sector ?



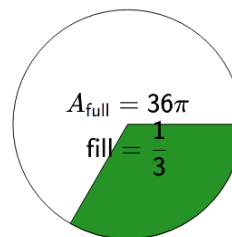
A	7	B	1	C	6
D	10	E	8	F	4

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



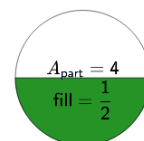
A	4π	B	$\frac{3}{2}\pi$
C	$\frac{7}{2}\pi$	D	$\frac{1}{2}\pi$
E	$\frac{9}{2}\pi$		

- 4 The area of the full circle is 36π . What is the area of the green shaded $\frac{1}{3}$ sector ?



A	19π
B	3π
C	5π
D	12π

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

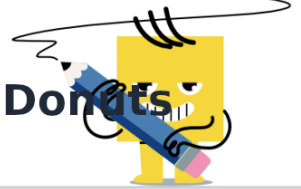


A	14	B	8	C	5
D	13	E	16	F	11

- 6 The area of the green shaded $\frac{2}{3}$ sector is 12. What is the area of the full circle?

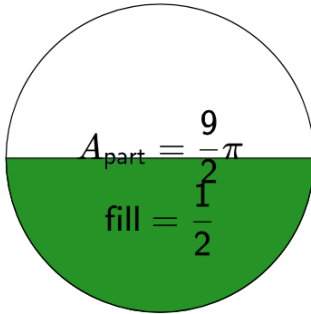


A	27	B	8	C	13
D	18	E	22	F	16



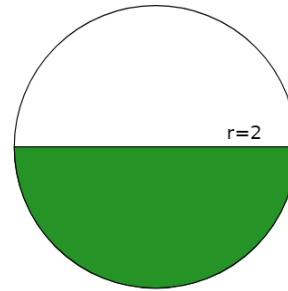
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- 7 The area of the green shaded $\frac{1}{2}$ sector is $\frac{9}{2}\pi$. What is the area of the full circle?



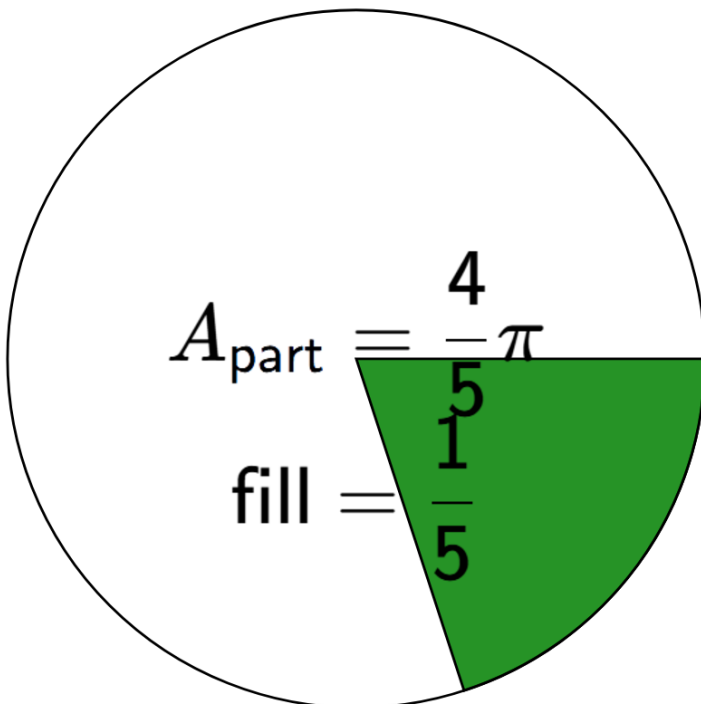
A	$\frac{3}{2}\pi$	B	5π
C	$\frac{11}{2}\pi$	D	3π
E	9π		

- 8 Find the area (in terms of π) of the green shaded sector that covers $\frac{1}{2}$ of the circle with radius 2

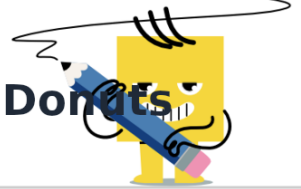


A	$\frac{5}{2}\pi$	B	$\frac{5}{4}\pi$
C	$\frac{1}{4}\pi$	D	$\frac{3}{4}\pi$
E	2π		

- 9 The area of the green shaded $\frac{1}{5}$ sector is $\frac{4}{5}\pi$. What is the area of the full circle?

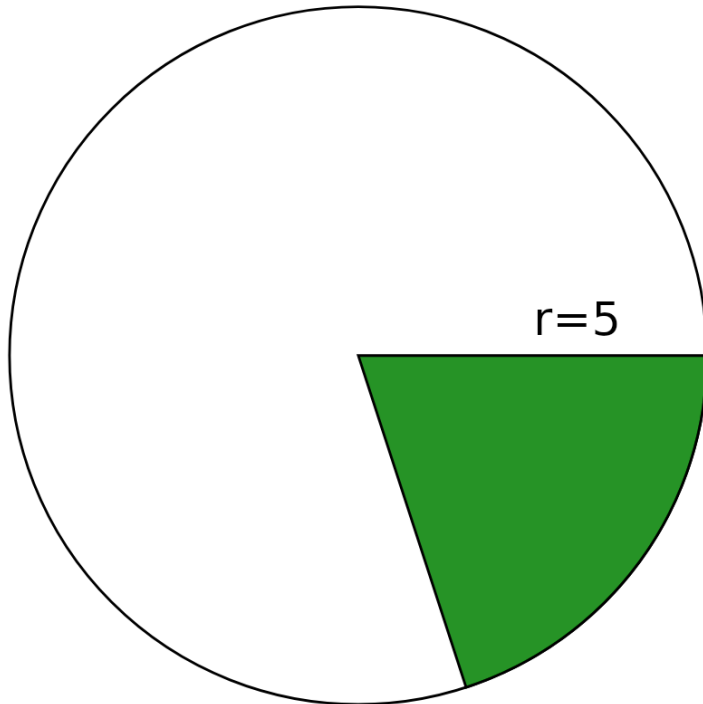


A	1π
B	$\frac{1}{5}\pi$
C	4π
D	$\frac{2}{5}\pi$



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10 Find the area (in terms of π) of the green shaded sector that covers $\frac{1}{5}$ of the circle with radius 5



A

$$\frac{27}{5}\pi$$

B

$$\frac{11}{5}\pi$$

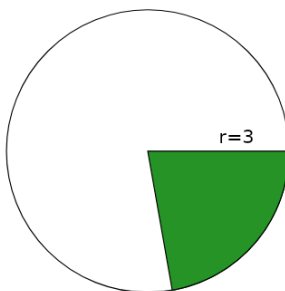
C

$$\frac{21}{5}\pi$$

D

$$5\pi$$

11 Find the area (in terms of π) of the green shaded sector that covers $\frac{2}{9}$ of the circle with radius 3



A

$$\frac{8}{9}\pi$$

B

$$\frac{25}{9}\pi$$

C

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

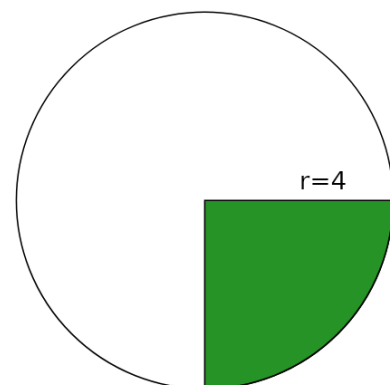
D

$$\frac{26}{9}\pi$$

E

$$2\pi$$

12 Find the area (to the closest integer) of the green shaded sector that covers $\frac{1}{4}$ of the circle with radius 4



A

$$14$$

B

$$22$$

C

$$15$$

D

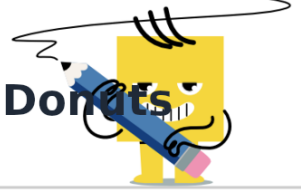
$$4$$

E

$$18$$

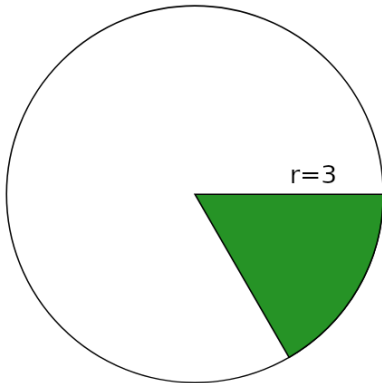
F

$$13$$



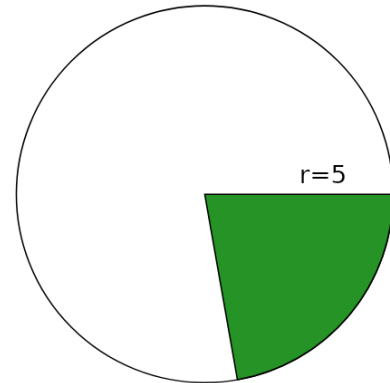
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- 13** Find the area (to the closest integer) of the green shaded sector that covers $\frac{1}{6}$ of the circle with radius 3



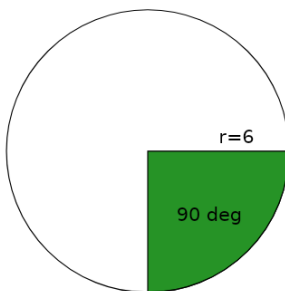
A	12	B	2	C	11
D	10	E	6	F	5

- 14** Find the area (to the closest integer) of the green shaded sector that covers $\frac{2}{9}$ of the circle with radius 5



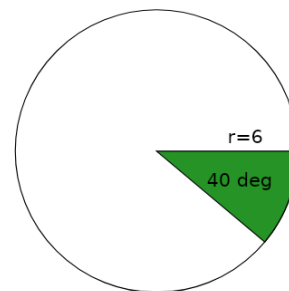
A	20	B	7	C	10
D	24	E	19	F	17

- 15** Find the area (in terms of π) of the green shaded sector with an angle of 90° in the circle with radius 6

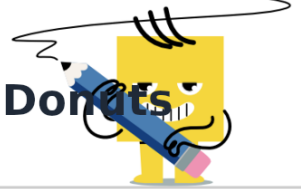


A	9π	B	$\frac{27}{4}\pi$
C	$\frac{27}{2}\pi$	D	$\frac{45}{4}\pi$
E	$\frac{33}{4}\pi$		

- 16** Find the area (in terms of π) of the green shaded sector with an angle of 40° in the circle with radius 6

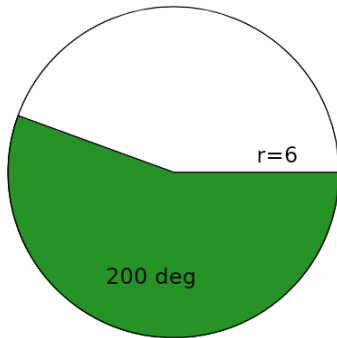


A	4π	B	3π
C	$\frac{2}{3}\pi$	D	$\frac{17}{3}\pi$
E	$\frac{5}{3}\pi$		



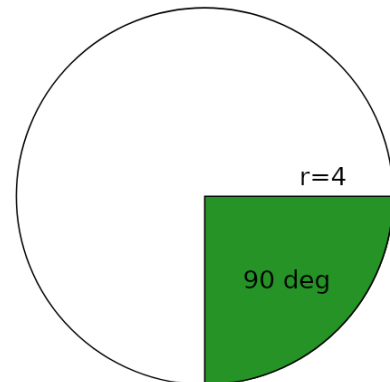
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- 17** Find the area (in terms of π) of the green shaded sector with an angle of 200° in the circle with radius 6



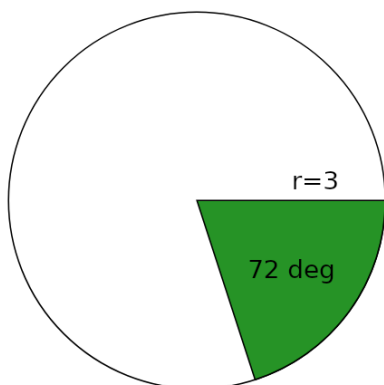
A	10π	B	20π
C	22π	D	28π
E	8π		

- 18** Find the area (to the closest integer) of the green shaded sector with an angle of 90° in the circle with radius 4



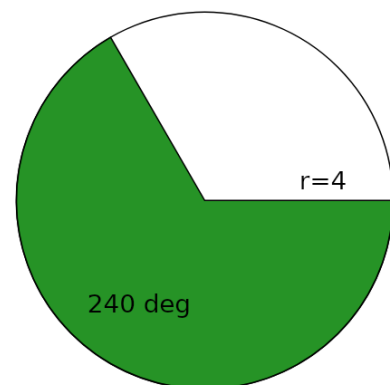
A	19	B	18	C	8
D	9	E	13	F	10

- 19** Find the area (to the closest integer) of the green shaded sector with an angle of 72° in the circle with radius 3

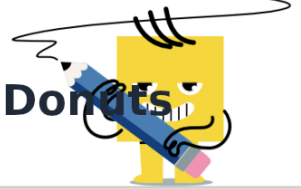


A	11	B	2	C	1
D	4	E	6	F	9

- 20** Find the area (to the closest integer) of the green shaded sector with an angle of 240° in the circle with radius 4

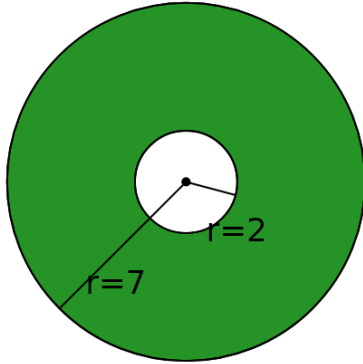


A	34	B	46	C	31
D	13	E	49	F	61



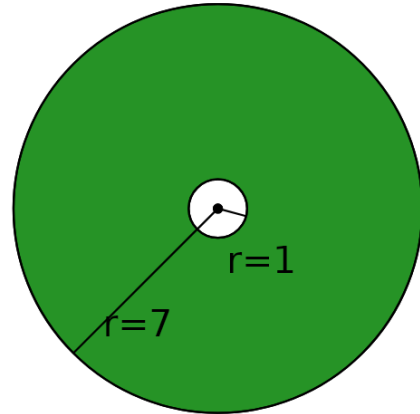
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- 21** Find the area (in terms of π) of the donut with outer radius 7 and inner radius 2



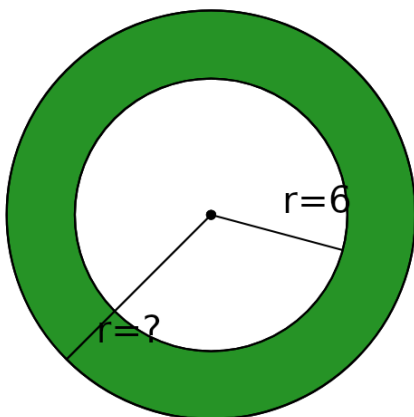
A	65π	B	45π
C	33π	D	21π
E	81π		

- 22** Find the area (to the closest integer) of the donut with outer radius 7 and inner radius 1



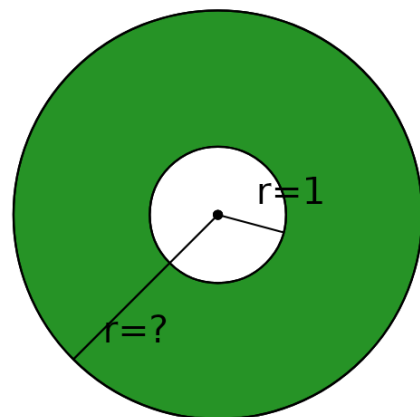
A	256	B	151	C	226
D	91	E	106	F	196

- 23** Find the outer radius of the donut with an area of 45π and an inner radius of 6

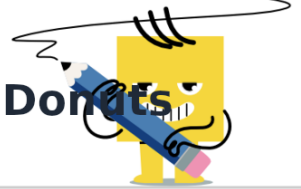


A	4	B	16	C	10
D	9	E	6	F	1

- 24** Find the outer radius of the donut with an area of 25.13 and an inner radius of 1

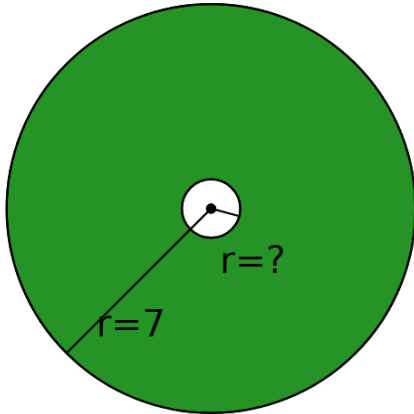


A	6	B	11	C	7
D	3	E	1	F	2



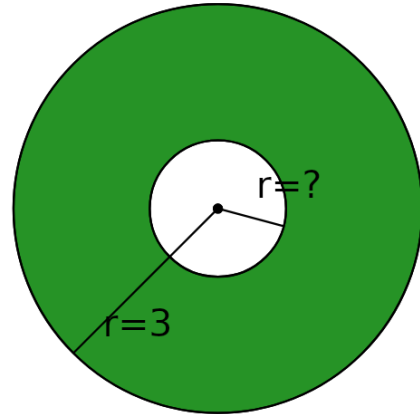
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- 25** Find the inner radius of the donut with an area of 48π and an outer radius of 7



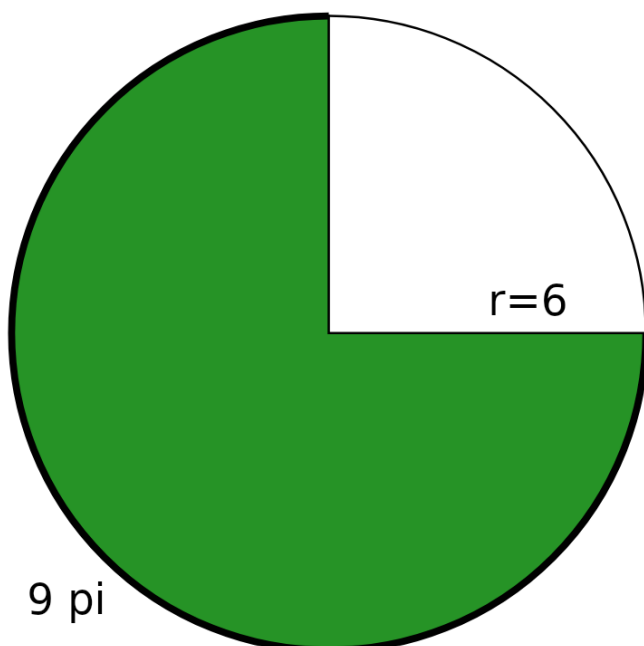
A	1	B	8	C	9
D	3	E	5	F	4

- 26** Find the inner radius of the donut with an area of 25.13 and an outer radius of 3

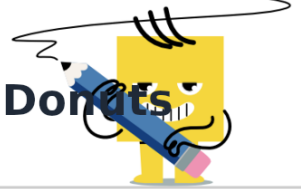


A	8	B	1	C	3
D	10	E	9	F	6

- 27** Find the area (in terms of π) of the green shaded sector with an arc length of 9π in the circle with radius 6

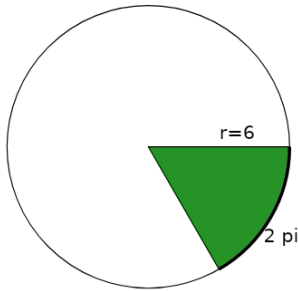


A	22π
B	27π
C	7π
D	$\frac{49}{2}\pi$



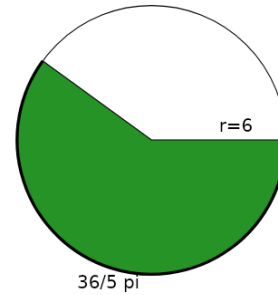
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- 28** Find the area (in terms of π) of the green shaded sector with an arc length of 2π in the circle with radius 6



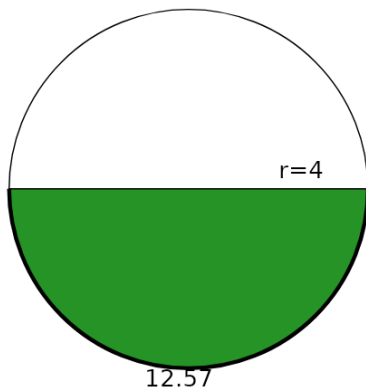
A	7π	B	$\frac{15}{2}\pi$
C	$\frac{19}{2}\pi$	D	6π
E	5π		

- 29** Find the area (in terms of π) of the green shaded sector with an arc length of $\frac{36}{5}\pi$ in the circle with radius 6



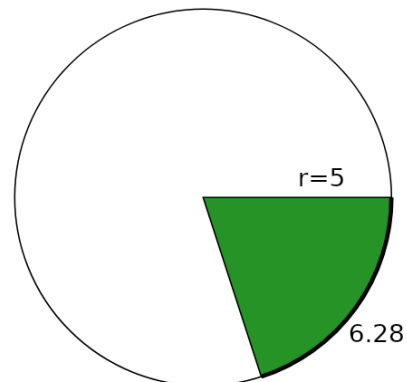
A	$\frac{108}{5}\pi$	B	$\frac{18}{5}\pi$
C	$\frac{198}{5}\pi$	D	$\frac{88}{5}\pi$
E	$\frac{68}{5}\pi$		

- 30** Find the area (to the closest integer) of the green shaded sector with an arc length of 12.57 in the circle with radius 4

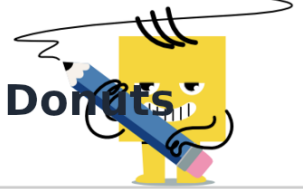


A	25	B	15	C	33
D	23	E	37	F	19

- 31** Find the area (to the closest integer) of the green shaded sector with an arc length of 6.28 in the circle with radius 5

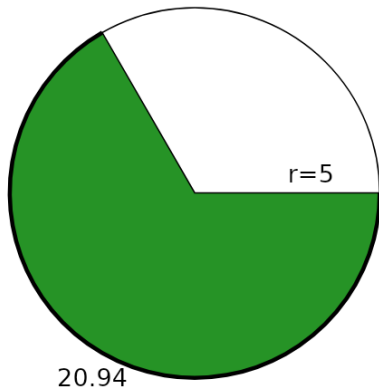


A	16	B	7	C	9
D	22	E	10	F	23



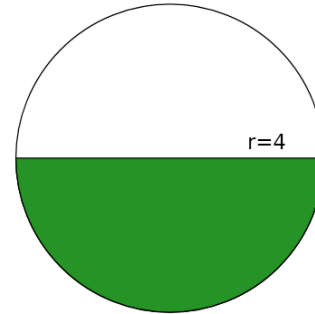
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- 32** Find the area (to the closest integer) of the green shaded sector with an arc length of 20.94 in the circle with radius 5



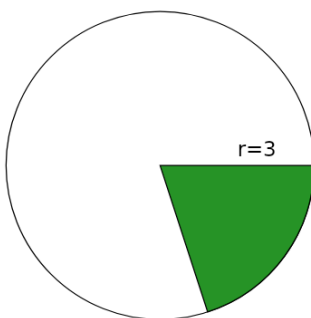
A	52	B	77	C	47
D	17	E	87	F	7

- 33** Find what fraction a sector with area 8π is of a circle with radius 4



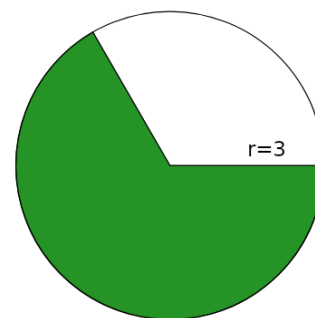
A	$\frac{1}{2}$	B	$\frac{1}{6}$
C	$\frac{3}{4}$	D	3
E	5		

- 34** Find what fraction a sector with area $\frac{9}{5}\pi$ is of a circle with radius 3

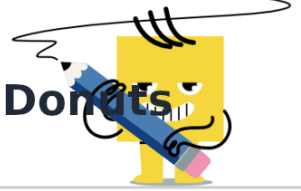


A	$\frac{1}{3}$	B	8
C	$\frac{3}{5}$	D	3
E	$\frac{1}{5}$		

- 35** Find what fraction a sector with area 6π is of a circle with radius 3

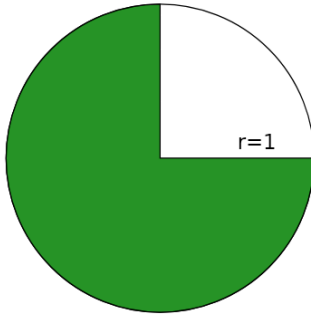


A	$\frac{13}{5}$	B	$\frac{14}{3}$
C	$\frac{4}{17}$	D	$\frac{2}{5}$
E	$\frac{2}{3}$		



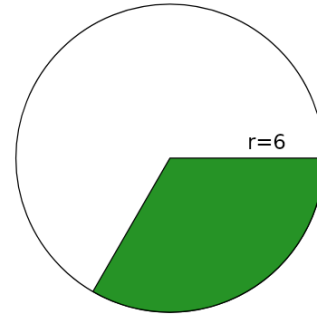
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36 A sector with area 2.36 is what fraction of a circle with radius 1?



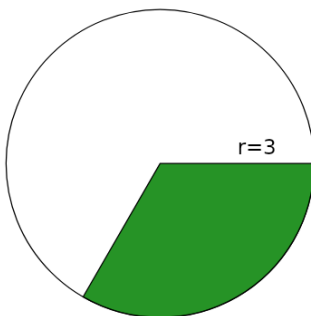
A	$\frac{1}{3}$	B	$\frac{11}{2}$
C	4	D	$\frac{1}{2}$
E	$\frac{3}{4}$		

37 A sector with area 37.7 is what fraction of a circle with radius 6?



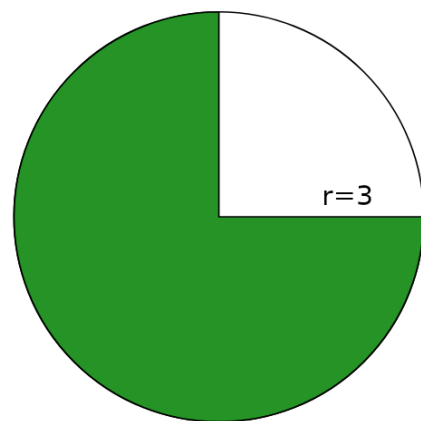
A	$\frac{4}{7}$	B	$\frac{3}{2}$
C	$\frac{2}{9}$	D	$\frac{1}{3}$
E	2		

38 A sector with area 9.42 is what fraction of a circle with radius 3?

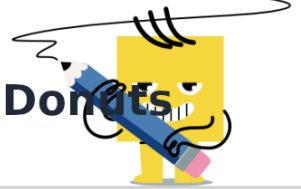


A	2	B	$\frac{1}{11}$
C	3	D	$\frac{9}{4}$
E	$\frac{1}{3}$		

39 Find the sector angle for a sector with area $\frac{27}{4}\pi$ in a circle of radius 3

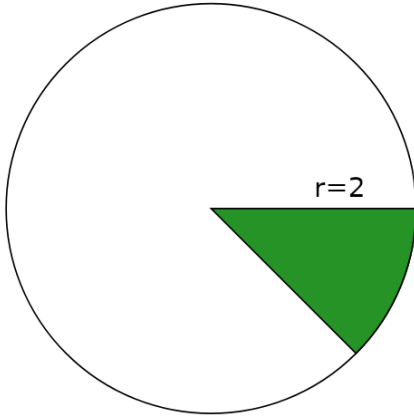


A	270°	B	405°	C	$1,215^\circ$
D	675°	E	135°	F	945°



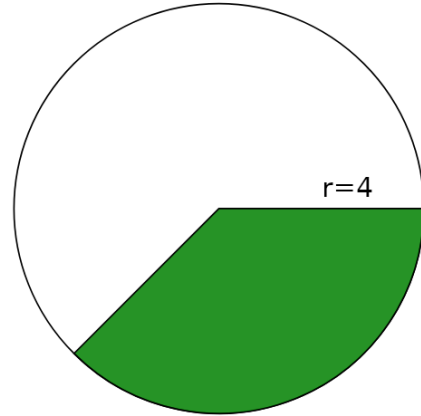
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40 Find the sector angle for a sector with area $\frac{1}{2}\pi$ in a circle of radius 2



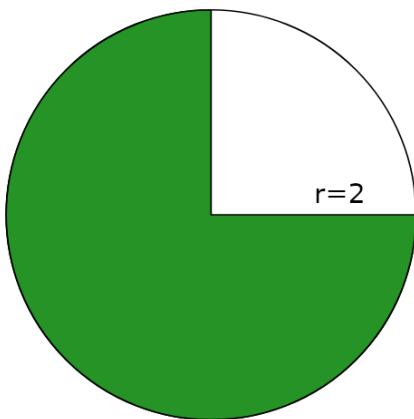
A 105°	B 25°	C 45°
D 205°	E 5°	F 185°

41 Find the sector angle for a sector with area 6π in a circle of radius 4



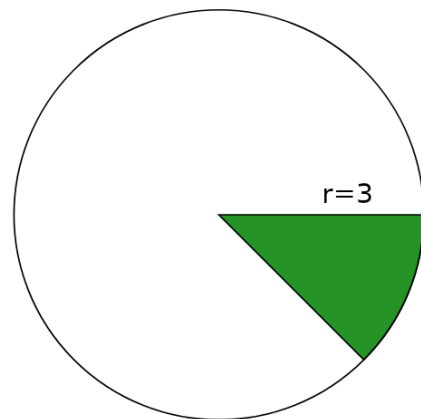
A 330°	B 450°	C 460°
D 135°	E 200°	F 590°

42 A sector with area 9.42 in a circle of radius 2 has what sector angle?

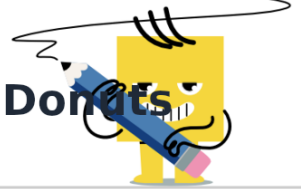


A 1,485°	B 1,080°	C 810°
D 270°	E 1,350°	F 540°

43 A sector with area 3.53 in a circle of radius 3 has what sector angle?

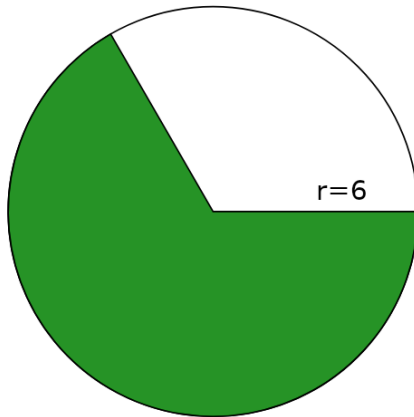


A 145°	B 125°	C 165°
D 65°	E 225°	F 45°



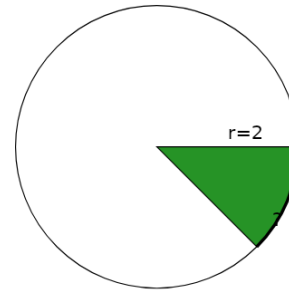
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- 44** A sector with area 75.4 in a circle of radius 6 has what sector angle?



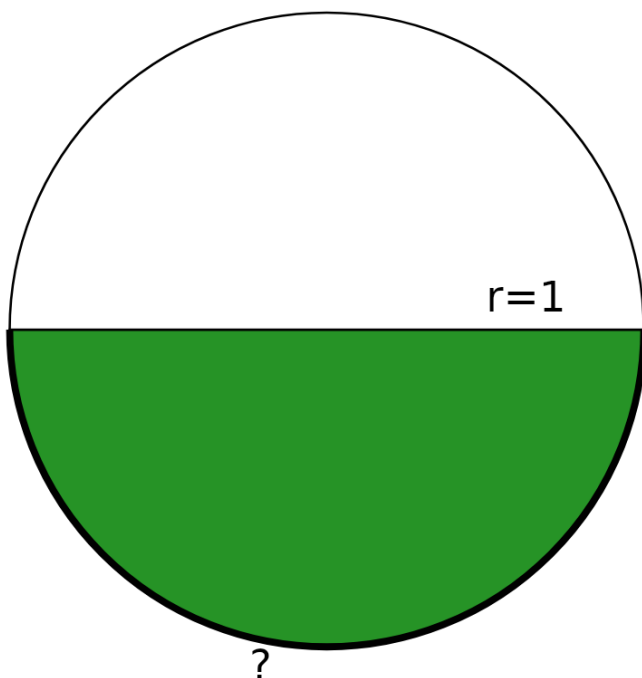
A 120°	B 960°	C 1,200°
D 240°	E 840°	F 480°

- 45** Find the arc length of the green shaded sector with area $\frac{1}{2}\pi$ in a circle of radius 2

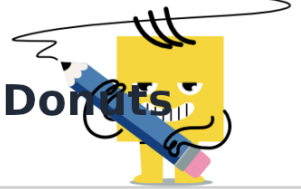


A 1π	B $\frac{1}{3}\pi$
C 2π	D $\frac{1}{2}\pi$
E $\frac{2}{11}\pi$	

- 46** Find the arc length of the green shaded sector with area $\frac{1}{2}\pi$ in a circle of radius 1

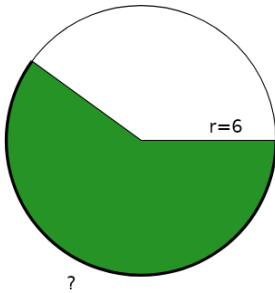


A $\frac{7}{12}\pi$
B 12π
C 1π
D $\frac{1}{2}\pi$



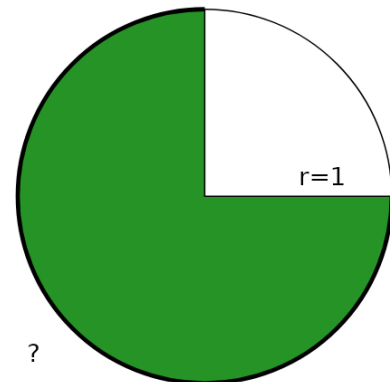
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- 47** Find the arc length of the green shaded sector with area $108/5 \pi$ in a circle of radius 6



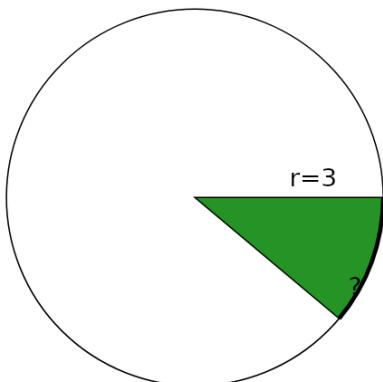
A	18π	B	$\frac{36}{5}\pi$
C	63π	D	$\frac{39}{7}\pi$
E	$\frac{30}{7}\pi$		

- 48** A sector with area 2.36 in a circle of radius 1 has what the arc length (to the closest integer)?



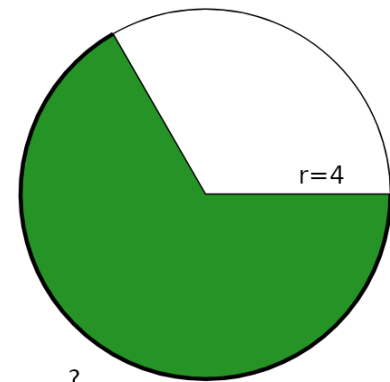
A	5	B	4	C	6
D	7	E	1	F	3

- 49** A sector with area 3.14 in a circle of radius 3 has what the arc length (to the closest integer)?

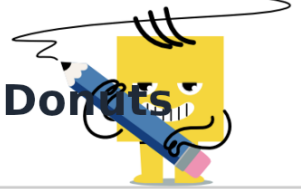


A	0	B	1	C	5
D	2	E	3	F	6

- 50** A sector with area 33.51 in a circle of radius 4 has what the arc length (to the closest integer)?

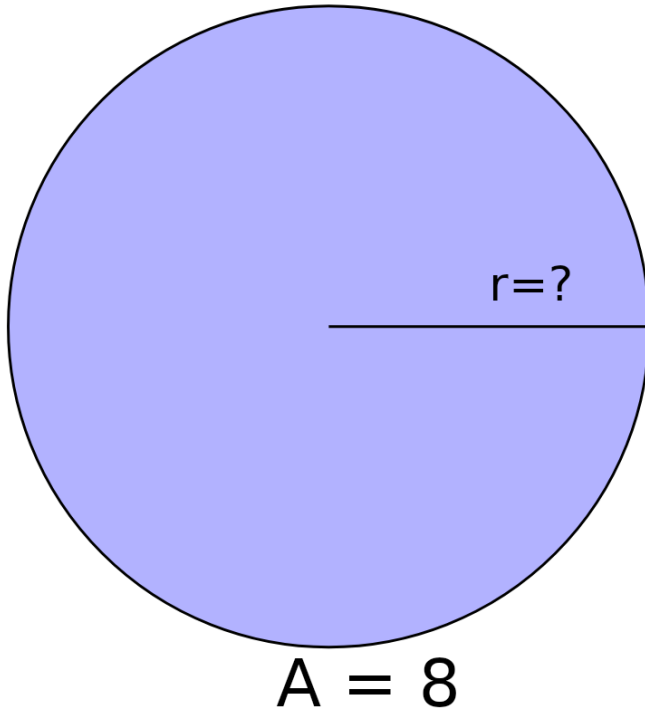


A	17	B	15	C	21
D	20	E	19	F	18



Geometry - Circle Area, Sectors and Donuts - Intro

51 If the area of this circle is 8, what is its radius?



A

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

B

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

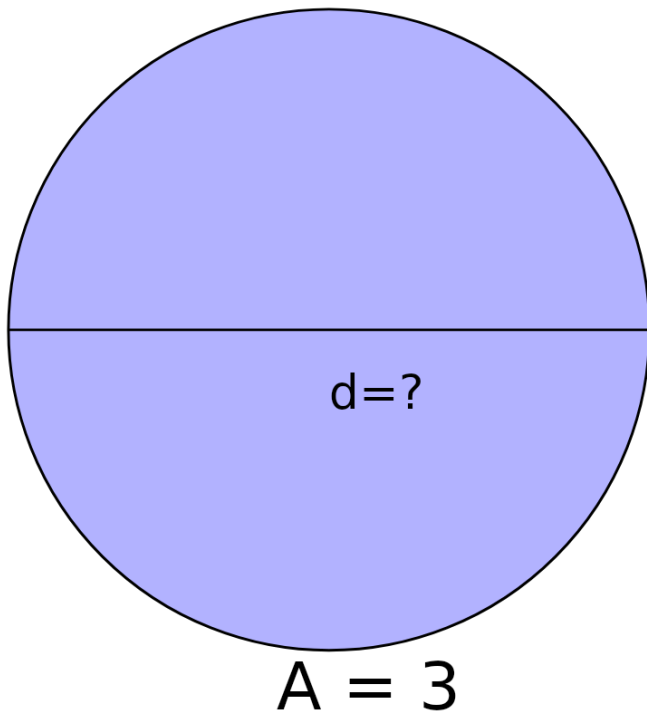
C

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

D

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

52 If the area of this circle is 3, what is its diameter?



A

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

B

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

C

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

D

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