

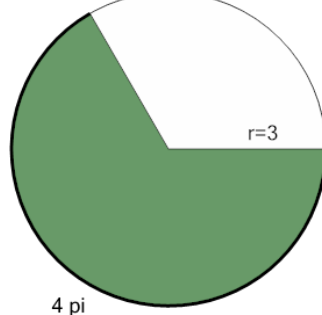


Math worksheet on 'Area of a Circle Sector From Arc Length to Area (Equation) (Level 3)'. Part of a broader unit on 'Geometry - Circle Area, Sectors and Donuts - Intro'

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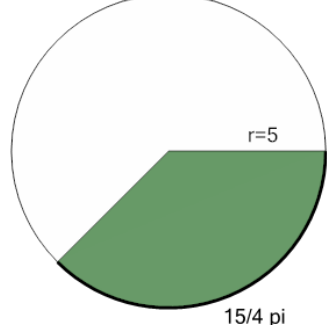
app.mobius.academy/math/units/geometry_circles_sector_donut_area_logic_intro/

1 Find the area (in terms of π) of the green shaded sector with an arc length of 4π in the circle with radius 3



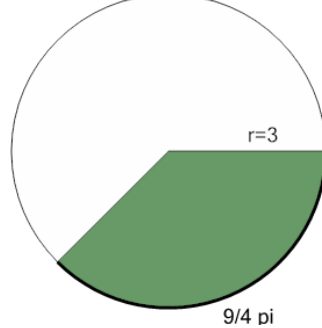
| | | |
|-------------------|--------|--------|
| a | b | c |
| 9π | 5π | 6π |
| d | e | |
| $\frac{19}{3}\pi$ | 8π | |

2 Find the area (in terms of π) of the green shaded sector with an arc length of $15/4\pi$ in the circle with radius 5



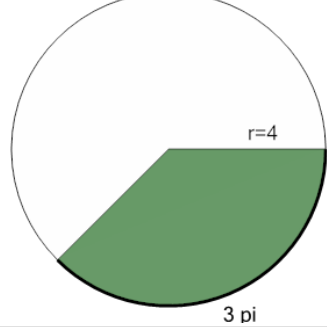
| | | |
|-------------------|--------------------|--------------------|
| a | b | c |
| $\frac{75}{8}\pi$ | $\frac{27}{4}\pi$ | $\frac{103}{8}\pi$ |
| d | e | |
| $\frac{33}{8}\pi$ | $\frac{117}{8}\pi$ | |

3 Find the area (in terms of π) of the green shaded sector with an arc length of $9/4\pi$ in the circle with radius 3



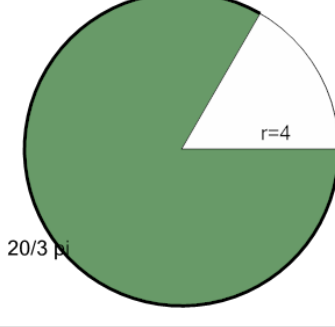
| | | |
|-------------------|-------------------|-------------------|
| a | b | c |
| $\frac{19}{8}\pi$ | $\frac{29}{8}\pi$ | $\frac{21}{8}\pi$ |
| d | e | |
| $\frac{37}{8}\pi$ | $\frac{27}{8}\pi$ | |

4 Find the area (in terms of π) of the green shaded sector with an arc length of 3π in the circle with radius 4



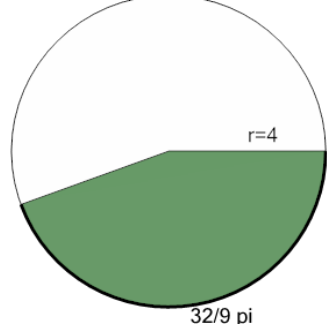
| | | |
|------------------|------------------|------------------|
| a | b | c |
| 6π | $\frac{9}{2}\pi$ | $\frac{3}{2}\pi$ |
| d | e | |
| $\frac{5}{2}\pi$ | | |

5 Find the area (in terms of π) of the green shaded sector with an arc length of $20/3\pi$ in the circle with radius 4



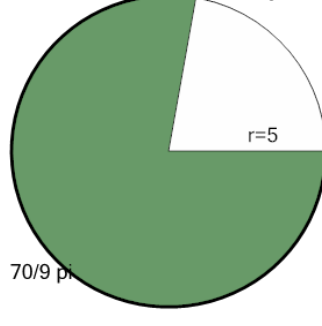
| | | |
|-------------------|-------------------|-------------------|
| a | b | c |
| $\frac{56}{3}\pi$ | $\frac{40}{3}\pi$ | $\frac{68}{3}\pi$ |
| d | e | |
| $\frac{44}{3}\pi$ | | |

6 Find the area (in terms of π) of the green shaded sector with an arc length of $32/9\pi$ in the circle with radius 4



| | | |
|--------------------|-------------------|------------------|
| a | b | c |
| $\frac{40}{9}\pi$ | $\frac{34}{9}\pi$ | $\frac{4}{9}\pi$ |
| d | e | |
| $\frac{106}{9}\pi$ | $\frac{64}{9}\pi$ | |

7 Find the area (in terms of π) of the green shaded sector with an arc length of $70/9\pi$ in the circle with radius 5



| | | |
|--------------------|--------------------|------------------|
| a | b | c |
| $\frac{260}{9}\pi$ | $\frac{98}{3}\pi$ | $\frac{5}{9}\pi$ |
| d | e | |
| $\frac{175}{9}\pi$ | $\frac{158}{9}\pi$ | |