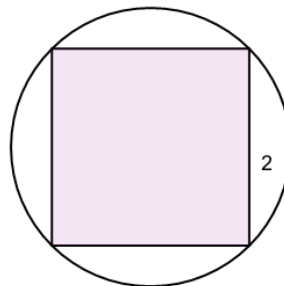




Math worksheet on 'Inscribed Square in Circle - Square Side Length to Circle Area (Level 1)'. Part of a broader unit on 'Inscribed Squares and Circles - Intro'

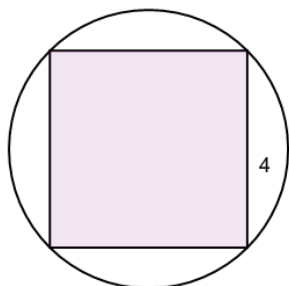
Learn online: [app.mobius.academy/math/units/inscribed\\_squares\\_and\\_circles\\_intro/](http://app.mobius.academy/math/units/inscribed_squares_and_circles_intro/)

1 Find the area of the circle that has a square inscribed with side length 2



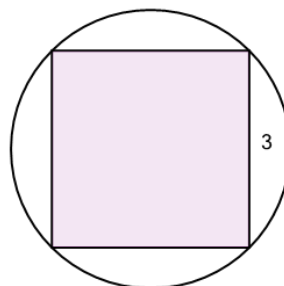
- |   |                       |   |                 |   |                          |
|---|-----------------------|---|-----------------|---|--------------------------|
| a | $\frac{2^2}{2} \pi$   | b | $\frac{4}{\pi}$ | c | $\frac{4}{2} \sqrt{2}$   |
| d | $2\sqrt{\frac{4}{2}}$ | e | $\frac{4}{\pi}$ | f | $2\sqrt{\frac{4}{2\pi}}$ |

2 Find the area of the circle that has a square inscribed with side length 4



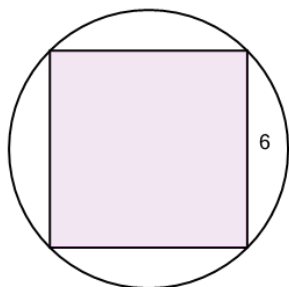
- |   |                     |   |                      |   |                     |
|---|---------------------|---|----------------------|---|---------------------|
| a | $(\sqrt{32})^2 \pi$ | b | $\frac{8}{\pi}$      | c | $\frac{4^2}{2} \pi$ |
| d | $\frac{8^2}{2} \pi$ | e | $\frac{32^2}{2} \pi$ | f | <b>16</b>           |

3 Find the area of the circle that has a square inscribed with side length 3



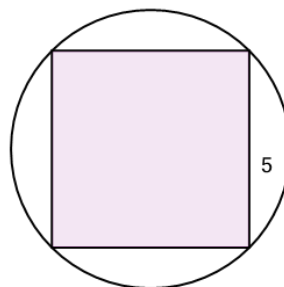
- |   |                     |   |                         |   |                 |
|---|---------------------|---|-------------------------|---|-----------------|
| a | $\frac{5^2}{2} \pi$ | b | $\frac{3^2}{2} \pi$     | c | $\frac{6}{\pi}$ |
| d | $4\sqrt{6}$         | e | $\frac{18}{2} \sqrt{2}$ | f | $\frac{6}{\pi}$ |

4 Find the area of the circle that has a square inscribed with side length 6



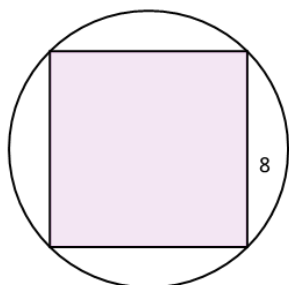
- |   |                         |   |                        |   |                     |
|---|-------------------------|---|------------------------|---|---------------------|
| a | $4\sqrt{12}$            | b | $\frac{36^2}{2} \pi$   | c | $\frac{12}{\pi}$    |
| d | $\frac{18}{2} \sqrt{2}$ | e | $2\sqrt{\frac{12}{2}}$ | f | $\frac{6^2}{2} \pi$ |

5 Find the area of the circle that has a square inscribed with side length 5



- |   |                      |   |                      |   |                      |
|---|----------------------|---|----------------------|---|----------------------|
| a | $\frac{10^2}{2} \pi$ | b | $\frac{50^2}{2} \pi$ | c | $\frac{13}{\pi}$     |
| d | $(\sqrt{25})^2 \pi$  | e | $\frac{5^2}{2} \pi$  | f | $\frac{10^2}{2} \pi$ |

6 Find the area of the circle that has a square inscribed with side length 8



- |   |                     |   |                       |   |                         |
|---|---------------------|---|-----------------------|---|-------------------------|
| a | $\frac{8^2}{2} \pi$ | b | $(\sqrt{64})^2 \pi$   | c | $\frac{64}{2} \sqrt{2}$ |
| d | $\frac{32}{\pi}$    | e | $\frac{128^2}{2} \pi$ | f | $\frac{16}{\pi}$        |