

Find the area of each cyclic quadrilateral below:

$$AB = 4, BC = 4, CD = 4, AD = 4$$

$$16$$

$$AB = 3, BC = 5, CD = 5, AD = 5$$

$$S = \frac{3+5+5+5}{2} = 9$$

$$[ABCD] = \sqrt{(9-3)(9-5)(9-5)(9-5)} = 8\sqrt{6}$$

$$AB = 4, BC = 4, CD = 5, AD = 5$$

$$S = 9$$

$$\text{Area} = 20$$

$$AB = 1, BC = 3, CD = 5, AD = 5$$

$$S = 7$$

$$\sqrt{6 \times 4 \times 2 \times 2} = 4\sqrt{6}$$

$$AB = 3, BC = 3, CD = 3, AD = 3$$

$$9$$

$$AB = 1, BC = 1, CD = 1, AD = 1$$

$$1$$

$$AB = 5, BC = 5, CD = 6, AD = 6$$

$$30$$

$$AB = 3, BC = 3, CD = 5, AD = 7$$

$$S = 9$$

$$\sqrt{6 \times 6 \times 4 \times 2} = 12\sqrt{2}$$

$$AB = 3, BC = 3, CD = 3, AD = 5$$

$$S = 7$$

$$\sqrt{4^3 \times 2} = 8\sqrt{2}$$

$$AB = 5, BC = 6, CD = 7, AD = 8$$

$$S = 13$$

$$\sqrt{5 \times 6 \times 7 \times 8} = 4\sqrt{105}$$

$$AB = 2, BC = 4, CD = 6, AD = 8$$

$$S = 10$$

$$\sqrt{2 \times 4 \times 6 \times 8} = 8\sqrt{6}$$

$$AB = 3, BC = 3, CD = 4, AD = 6$$

$$S = 8$$

$$\sqrt{5^2 \times 4 \times 2} = 10\sqrt{2}$$

$$AB = 2, BC = 4, CD = 6, AD = 8$$

$$S = 10$$

$$\therefore 8\sqrt{6}$$

$$AB = 5, BC = 5, CD = 5, AD = 7$$

$$S = 11$$

$$\therefore \sqrt{6^3 \times 4} = 12\sqrt{6}$$

$$AB = 4, BC = 6, CD = 8, AD = 8$$

$$S = 13$$

$$\therefore \sqrt{9 \times 7 \times 5^2} = 15\sqrt{7}$$

$$AB = 1, BC = 2, CD = 3, AD = 4$$

$$S = 5$$

$$\therefore 2\sqrt{6}$$

$$AB = 5, BC = 6, CD = 6, AD = 7$$

$$S = 12$$

$$\therefore 6\sqrt{35}$$

$$AB = 2, BC = 4, CD = 6, AD = 8$$

$$S = 10$$

$$\therefore 8\sqrt{6}$$

$$AB = 3, BC = 3, CD = 3, AD = 3$$

$$9$$

$$AB = 2, BC = 3, CD = 4, AD = 3$$

$$S = 6$$

$$\therefore 6\sqrt{2}$$