

5-1 円周角の定理

1

解答 (1)40° (2)60° (3)110°

解説

$$(1) \angle x = 80^\circ \times \frac{1}{2} = 40^\circ$$

$$(2) \angle x = 30^\circ \times 2 = 60^\circ$$

$$(3) \angle x = 220^\circ \times \frac{1}{2} = 110^\circ$$

2

解答 (1)30° (2)45°

解説

$$(1) \angle x = 180^\circ - (60^\circ + 90^\circ) = 180^\circ - 50^\circ = 30^\circ$$

$$(2) \angle x + \angle x + 90^\circ = 180^\circ$$

$$2\angle x = 90^\circ$$

$$\angle x = 45^\circ$$

3

解答 (1)50° (2)55° (3)90°

解説

$$(1) \angle x = 30^\circ + 20^\circ = 50^\circ$$

$$(2) \angle x = 35^\circ + 20^\circ = 55^\circ$$

$$(3) \angle x = 25^\circ + 25^\circ + 40^\circ = 90^\circ$$

4

解答 (1)50° (2)98°

解説

$$(1) \angle x = \angle DBC = 50^\circ$$

$$(2) \angle ACD = 180^\circ - (37^\circ + 113^\circ) = 180^\circ - 150^\circ = 30^\circ$$

$$\angle x = 180^\circ - (37^\circ + 45^\circ) = 180^\circ - 82^\circ = 98^\circ$$

5-2 円周角の定理の利用

1

解答 25°

解説

$$\angle QAB = 180^\circ - (90^\circ + 40^\circ) = 180^\circ - 130^\circ = 50^\circ$$

$$\angle x = 50^\circ \div 2 = 25^\circ$$

2

解答 70°

解説

$$\angle BAD = 140^\circ \div 2 = 70^\circ$$

$$\angle x = \angle BAD = 70^\circ$$