1) In the diagram below, angle ABC = 38°.

Find the following angles

a) angle BAC
b) angle ADC

2) In the diagram below, angle ACB = 34°.

Find angle BDC.
3) In the diagram below, angle ADC = 40°.

Find the following angles

a) angle x
b) angle y

4) In the diagram below, angle BOC = 42°.

Find the following angles

a) angle DAC
b) angle AOB
c) angle BAE
5) AB and BC are tangents to the circle shown below. Angle ACB = 59°.

Find angle OAB.

6) In the diagram below, angle ABD = 89°.

Find the following angles

a) angle ACD

b) angle AED
7) In the diagram below, angle ADC = 98° and angle ACD = 32°.

Find angle DBC.

8) In the diagram below, angle CAE = 38°.

Find the following angles

a) angle OCA
b) angle DAB
Solutions for the assessment Circle Theorems (advanced) - no reasons required

1) a) angle BAC = 52°
b) angle ADC = 52°
2) angle BDC = 56°

3) a) angle $x = 80°$
b) angle $y = 140°$
4) a) angle DAC = 90°
b) angle AOB = 138°
c) angle BAE = 69°

5) angle OAB = 29.5°
6) a) angle ACD = 89°
b) angle AED = 91°

7) angle DBC = 50°
8) a) angle OCA = 52°
b) angle DAB = 52°