Circle theorems: angles in the same segment

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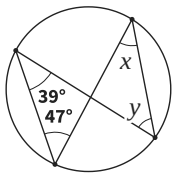
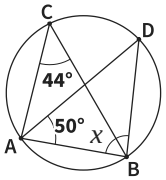
Angle ADB = 51°

2. Find x and y.



$x = 39°, y = 47°$

3. Find x. Give a reason.



86°: ADB = ACB = 44°

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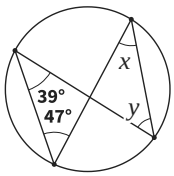

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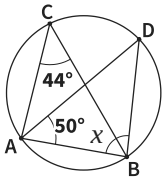

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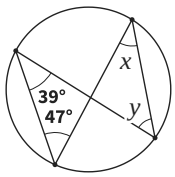

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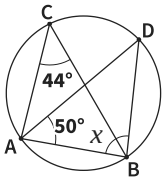

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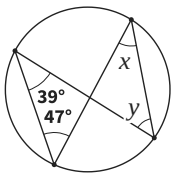

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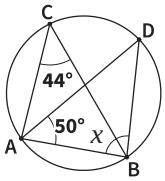

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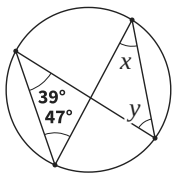

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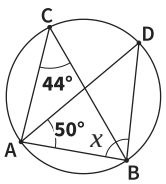

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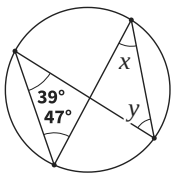

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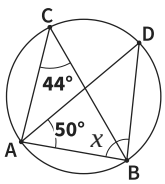

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Exit ticket Circle theorems: angles in the same segment

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Angle ADB = 51°

TESTS Angles in the same segment, read from words

LOOK FOR

102° doubled: that is the angle at the centre

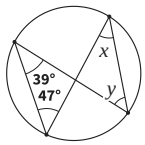
129° 180 − 51: C and D are on the same side, so the angles are equal

FIX IT

C and D are on the same side of chord AB. Angle ACB = 58°. Find angle ADB. 58°

---

2 **Find x and y.**



x = 39°, y = 47°

TESTS Choosing the angle on the same chord

LOOK FOR

x = 47°, y = 39° swapped: x stands on chord AB with the 39°, y on chord CD with the 47°

y = 94° 180 − 39 − 47: y is not in a triangle with those two angles

FIX IT

Angle ACB = 41° and angle CAD = 55°.
C and D are on the same side of AB.
Find angle ADB and angle CBD. ADB = 41°, CBD = 55°

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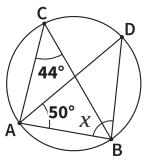
3 **Find x. Give a reason.**



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TESTS The equal angle, then the third angle of the triangle

LOOK FOR

136° 180 − 44: the angle at A left out

50° the angle at A copied: x is at B, the third angle of triangle ABD

FIX IT

In triangle ABD, angle ADB = 46° and angle DAB = 58°.
Find angle ABD. 76°