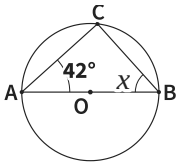
Circle theorems: angle in a semicircle

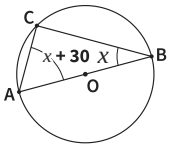
Exit ticket ANSWERS Name _____

1 AB is a diameter. Find x.



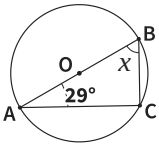
x = 48°

2 AB is a diameter. Find x.



x = 30

3 AB is a diameter. Find x.
Give a reason.



61°: angle C is 90°

Circle theorems: angle in a semicircle
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The Maths Habit

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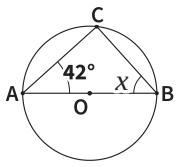
Exit ticket Circle theorems: angle in a semicircle

NEXT LESSON

1 **AB is a diameter. Find x.**



x = 48°

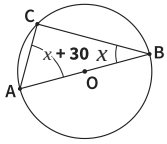
TESTS The third angle, with the right angle at C

LOOK FOR
- *138°* 180 − 42: the right angle at C left out
- *42°* the triangle is not isosceles: 180 − 90 − 42

FIX IT

AB is a diameter and C is on the circle. Angle CAB = 27°.
Find angle ABC. *63°*

2 **AB is a diameter. Find x.**



x = 30

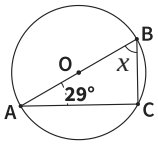
TESTS Two angles as expressions adding up to 90°

LOOK FOR
- *60* x + 30 = 90: the x at B left out
- *75* 2x + 30 = 180: the angles at A and B add up to 90°, not 180°

FIX IT

AB is a diameter. Angle CAB = 2x and angle CBA = 3x. Find x. *18*

3 **AB is a diameter. Find x. Give a reason.**



61°: angle C is 90°

TESTS The theorem with C below AB, with the reason written

LOOK FOR
- *61° with no reason* the reason: the angle in a semicircle is 90°
- *151°* 180 − 29: the right angle left out

FIX IT

AB is a diameter.
Angle ABC = 53°. Find angle CAB.
Give a reason. *37°: the angle in a semicircle is 90°*