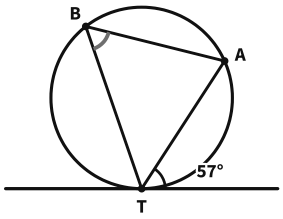
Circle theorems: alternate segment

1

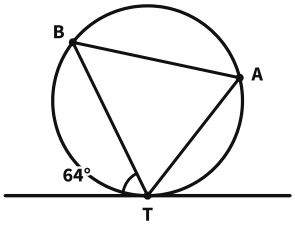
The line is a tangent to the circle at T.
Which angle in triangle TAB is also 57°?
Mark it.



Angle _____

2

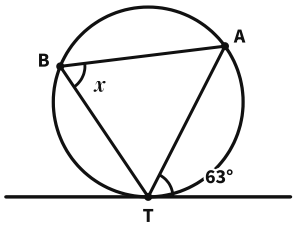
The line is a tangent to the circle at T.
Which angle in triangle TAB is also 64°?
Mark it.



Angle _____

3

The line is a tangent to the circle at T.
Find x. Give a reason.

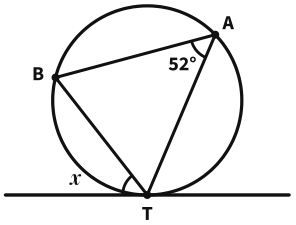


x = _____

Reason alternate segment theorem

4

The line is a tangent to the circle at T.
Find x. Give a reason.

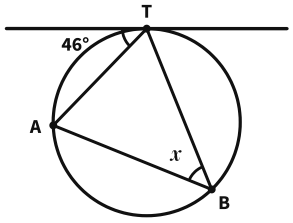


x = _____

Reason _____

5 *Notice the change!*

The line is a tangent to the circle at T.
Find x. Give a reason.

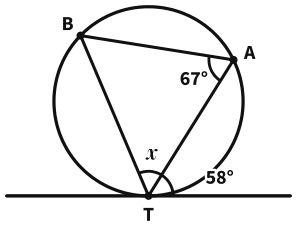


x = _____

Reason _____

6

The line is a tangent to the circle at T.
Find angle x.

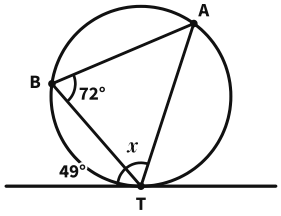


angle TBA = 58°

x = _____

7

The line is a tangent to the circle at T.
Find angle x.

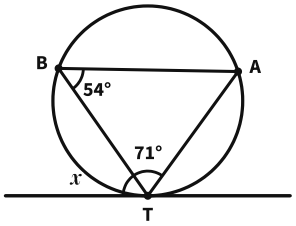


_____

x = _____

8 *Notice the change!*

The line is a tangent to the circle at T.
Find angle x.



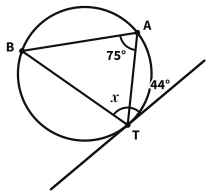
_____

x = _____

Circle theorems: alternate segment *further practice*

9

The line is a tangent to the circle at T.
Find angle x.



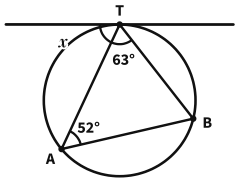
_____

_____

Answer _____

10

The line is a tangent to the circle at T.
Find angle x.



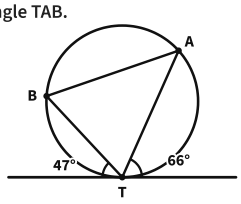
_____

_____

Answer _____

11

A round mirror rests on a shelf at T.
Strings TA, TB and AB make a triangle inside it. Find the three angles of triangle TAB.



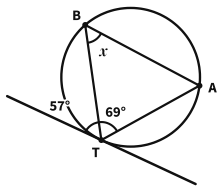
_____

_____

Answer _____

12

The line is a tangent to the circle at T.
Find angle x.



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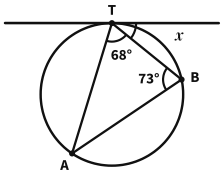
_____

Answer _____

13

A round glass panel hangs from a bar that touches it at T. Lead strips make triangle TAB. Find angle x.



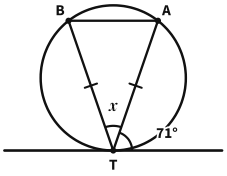
_____

_____

Answer _____

14

A round table touches a wall at T.
Strips of tape TA and TB are the same length. Find angle ATB, marked x.



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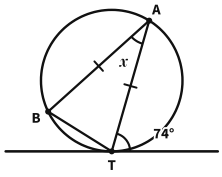
Answer _____

15

The line is a tangent to the circle at T.
AT = AB. Find angle TAB, marked x.



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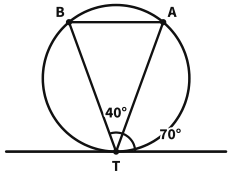
Answer _____

16

The line is a tangent to the circle at T.
Show that triangle TAB is isosceles.



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So _____