10-5

Tangents

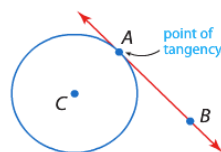
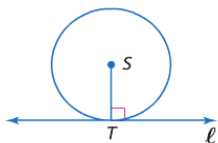### Tangent Line

A line that intersects a circle at exactly one point. The point at which they intersect is called the ***point of tangency.***
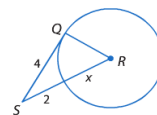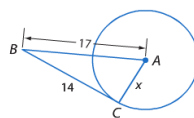

Theorem 10.10

In a plane, a line is tangent to a circle if and only if it is perpendicular to a radius drawn to the point of tangency.
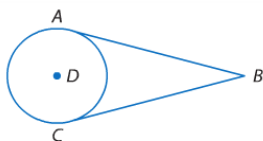

Find the value of *x*. Assume that segments that appear to be tangent are tangent.
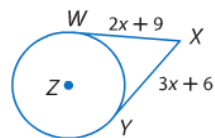
Theorem 10.11

If two segments from the same exterior point are tangent to a circle, then they are congruent.

ALGEBRA Find the value of x. Assume that segments that appear to be tangent are tangent.

W $2x + 9$ X

Z

$3x + 6$

Y

Quadrilateral *RSTU* is circumscribed about ⊙*J*. If the perimeter is 18 units, find x.