

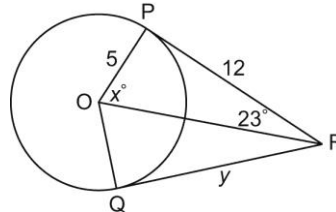
Master 8.17

Extra Practice 1

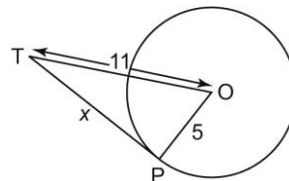
Lesson 8.1 Properties of Tangents to a Circle

1. Draw and label a diagram to illustrate the property of a tangent to a circle.

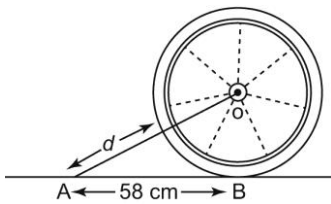
2. Point O is the centre of the circle.
Points P and Q are points of tangency.
Determine the values of x° and y .
Justify your solutions.



3. Point O is the centre of the circle.
Point P is a point of tangency.
Determine the value of x to the nearest tenth.
Justify your solution.



4. A wheel has radius 30 cm. It rolls along the ground toward a tack that is 58 cm from the point where the wheel currently touches the ground. What is the distance, d , between the tack and the closest point on the circumference of the wheel? Give the answer to the nearest tenth of a centimetre.



5. A circular plate has radius 13 cm.
It is packed in a square cardboard frame whose 4 edges just touch the plate.
What is the distance, d , from the centre of the plate to a corner of the frame?
Give the answer to the nearest tenth of a centimetre.

